RHI

JULY 2022

PROJECT ID: 6999-12-71

COUNTY: MARATHON

02

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right of Way Plat~~
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 210



N

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

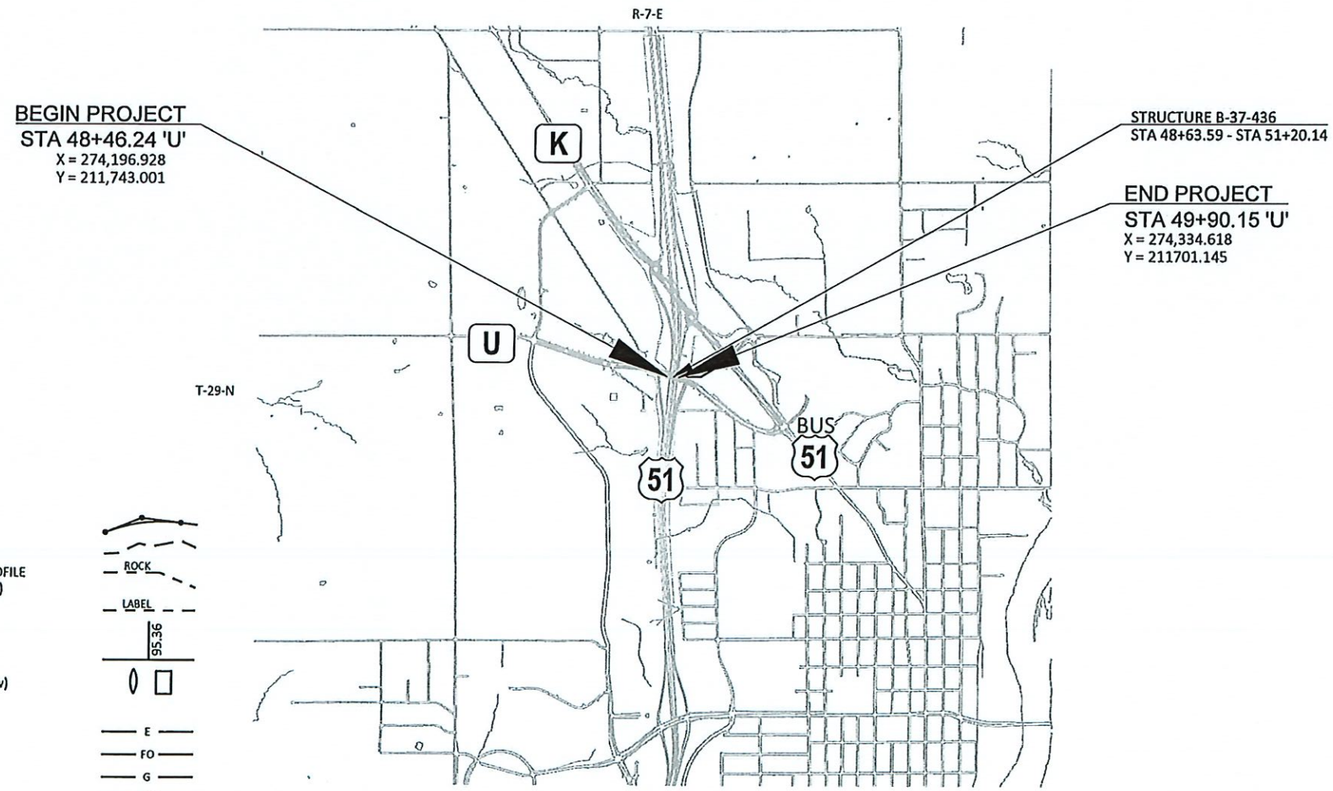
C WAUSAU, MERRILL AVE/COUNTY RD U

CTH U BRIDGE OVER USH 51 B-37-0436

USH 51
MARATHON COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6999-12-71	———	———

STATE PROJECT NUMBER
6999-12-71



BEGIN PROJECT
STA 48+46.24 'U'
X = 274,196.928
Y = 211,743.001

STRUCTURE B-37-436
STA 48+63.59 - STA 51+20.14

END PROJECT
STA 49+90.15 'U'
X = 274,334.618
Y = 211701.145

DESIGN DESIGNATION 6999-12-01 CTH U

A.A.D.T.	2015	=	7400
A.A.D.T.	2035	=	10600
D.H.V.		=	---
D.D.		=	59/41
T.		=	3.7%
DESIGN SPEED		=	40 MPH
ESALS		=	751,900

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE	SCITES	ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
MARSH AREA		TELEPHONE	T
		WATER	W
		UTILITY PEDESTAL	
WOODED OR SHRUB AREA		POWER POLE	
		TELEPHONE POLE	

LAYOUT

SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MARATHON COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ORIGINAL PLANS PREPARED BY
QUEST
Civil Engineers, LLC

WISCONSIN
ADAM J. OSYPOWSKI
E-38888
STEVENS POINT, WIS.
PROFESSIONAL ENGINEER
4-26-2022

(Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AYRES ASSOCIATES
Designer	QUEST CIVIL ENGINEERS
Project Manager	KOREY BOEHM
Regional Examiner	ZACH GRULING
Regional Supervisor	DAN ERVA

APPROVED FOR THE DEPARTMENT
DATE: 4-28-22 (Signature)

E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\010101_TI_51U.DWG PLOT DATE : 4/13/2022 12:39 PM PLOT BY : ADAM OSYPOWSKI PLOT NAME :

GENERAL NOTES

THIS PLAN HAS BEEN DEVELOPED BASED THE ORIGINAL ALIGNMENT AND DESIGN SURFACE MODEL DEVELOPED FOR THE CTH U/CTH K INTERCHANGE. NO DESIGN SURVEY WAS CONDUCTED FOR THIS PLAN. THE ACTUAL ROADWAY CENTERLINE AND ROADWAY FEATURES MAY DEVIATE FROM THE PLAN. NEW PAVEMENT SHALL FOLLOW EXISTING ROADWAY CENTERLINE. ANY ADJUSTMENTS SHALL BE INCIDENTAL TO OTHER ITEMS IN THE CONTRACT.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITIES SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

WHEN THE QUANTITY OF BASE AGGREGATE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON THE DEPTH OR THICKNESS SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL DEPTH WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL BY THE ENGINEER IN THE FIELD.

PURSUANT TO CHAPTER 59 OF THE WISCONSIN STATUTES, THE CONTRACTOR SHALL CAREFULLY MAKE A SEARCH FOR EVIDENCE OF ALL LANDMARKS, BENCHMARKS, AND OTHER CONTROL POINTS IN ALL AREAS WHERE SUCH LANDMARKS, BENCHMARKS, OR OTHER CONTROL POINTS MAY EXIST.

THE CONTRACTOR SHALL PROTECT ALL SURVEY MARKERS. SURVEY MARKERS SHALL NOT BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESHAPING AND RESTORATION (INCLUDING, BUT NOT LIMITED TO, SEED, FERTILIZER, MULCH, AND EROSION MAT) OF ANY DISTURBED AREAS OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS AS DETERMINED BY THE ENGINEER.

THE EXACT LOCATION OF THE EROSION CONTROL DEVICES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

UTILITY CONTACTS

WISCONSIN PUBLIC SERVICE CORPORATION - ELECTRICITY
JESSE PATTEN
P.O. BOX 1166
WAUSAU, WI 54402
(715)848-7405 WORK
(715)573-0349 (MOBILE)
Jesse.Patten@wisconsinpublicservice.com

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
EROSION CONTROL
TRAFFIC CONTROL
DETOUR PLAN

RUNOFF COEFFICENT TABLE

HYDROLOGIC SOIL GROUP												
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:	.											
ASPHALT	.70-.95											
CONCRETE	.80-.95											
BRICK	.70-.80											
DRIVES, WALKS	.75-.85											
ROOFS	.75-.85											
GRAVEL ROADS, SHOULDERS	.40-.60											

TOTAL PROJECT AREA =2.11 ac
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES= 2.09 ac

STREET LIGHTING CONTACT

CITY OF WAUSAU INSPECTIONS DEPARTMENT
RICK PERGOLSKI
407 GRANTS ST
WAUSAU, WI 54403
PHONE: (715) 571-7684

24-HOUR ON CALL ELECTRICIAN (715) 432-3127

DNR CONTACT

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
CASEY JONES
625 E COUNTY ROAD Y STE 700
OSHKOSH, WI 54901
PHONE: (715) 213-6571 WORK
PHONE: (715) 213-6571 MOBILE
E-MAIL: casey.jones@wisconsin.gov

2

2

OVERLOOK DR.

N

CTH U

CTH K

20TH AVE.

BEGIN PROJECT
STA 48+46.24 'U'

TEMPORARY CROSSOVER
'X' LINE

B-37-0436

790'SB'
790'NB'
780'SB'
780'NB'
770'SB'
770'NB'
760'SB'
760'NB'
750'SB'
750'NB'
740'SB'
740'NB'
730'SB'
730'NB'
720'SB'
720'NB'

SB USH 51
NB USH 51

END PROJECT
STA 49+90.15 'U'
SEE BRIDGE PLANS

BUSINESS 51

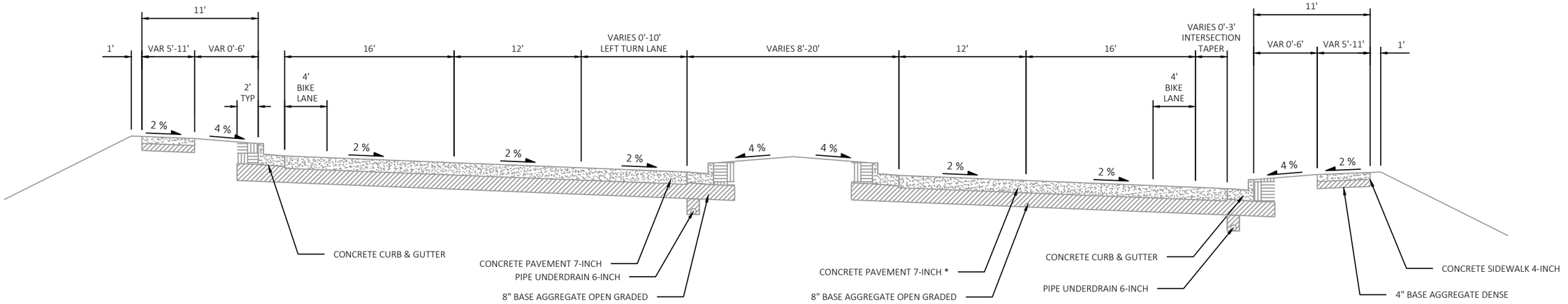
CAMPUS DR.

CTH U

12TH AVE.

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	PROJECT OVERVIEW	SHEET 3	E

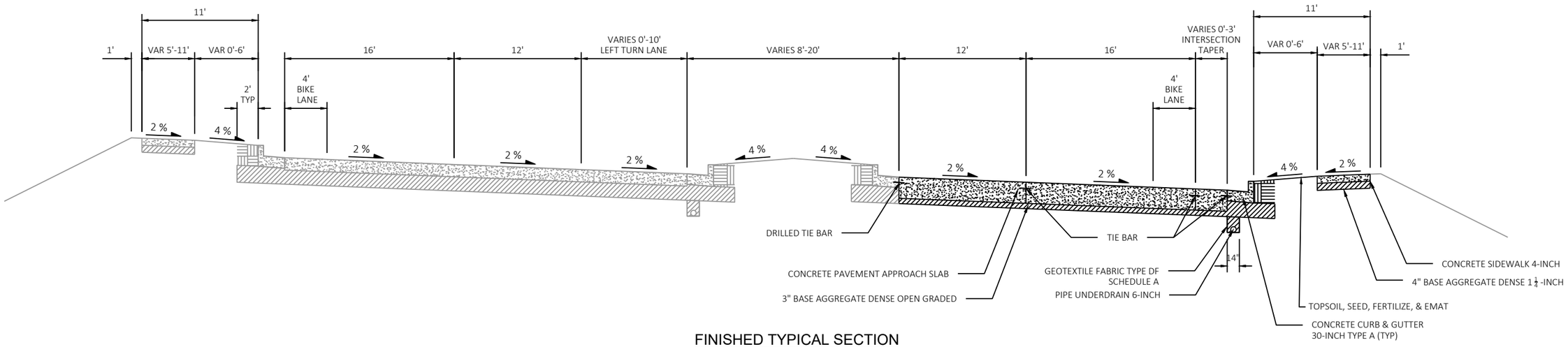
2



EXISTING TYPICAL SECTION

STA 48+46 - STA 49+88

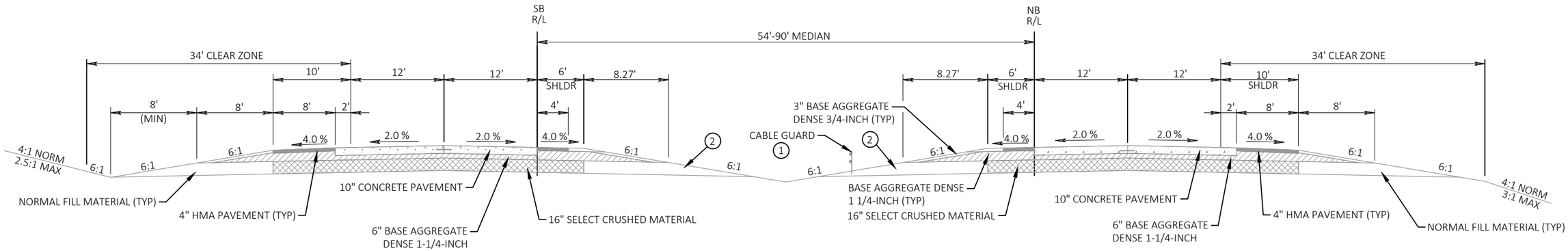
*STA 48+47 - STA 49+88 ARE WITHIN THE EXISTING APPROACH SLAB



FINISHED TYPICAL SECTION

STA 48+46 - STA 49+88

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 4	E

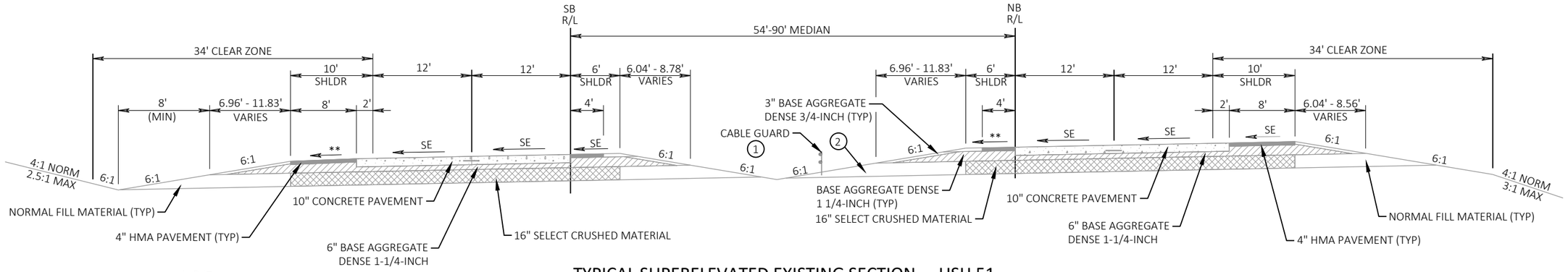


IN CUT

TYPICAL EXISTING SECTION - USH 51

STA 737'NB'+76.25 - STA 756'NB'+95.69
STA 762'NB'+93.92 - STA 811'NB'+34.42

IN FILL



IN CUT

TYPICAL SUPERELEVATED EXISTING SECTION - USH 51

STA 723'NB'+05.30 - STA 737'NB'+76.25
STA 756'NB'+95.69 - STA 762'NB'+93.92

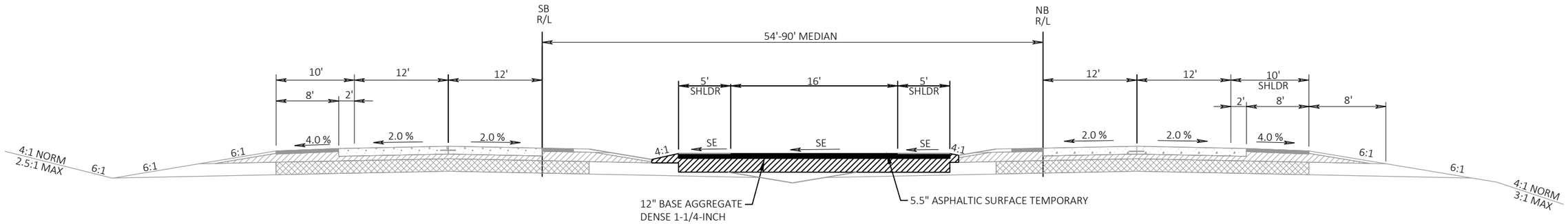
IN FILL

** THE LOW SIDE SHOULDER SLOPE ON SUPERELEVATED SECTION EQUALS THE SUPERELEVATION RATE WHEN THE SUPERELEVATION RATE IS GREATER THAN 4%. IF THE SUPERELEVATION RATE IS LESS THAN OR EQUAL TO 4%. THE LOW SIDE SHOULDER SLOPE IS 4%. HIGH SIDE SHOULDER SLOPE ON SUPERELEVATED SECTIONS EQUALS THE SUPERELEVATION RATE. SEE SUPERELEVATION TABLES FOR SE

(1) STA 721'NB'+62 - STA 750'NB'+40
STA 752'NB'+50 - STA 757'NB'+00

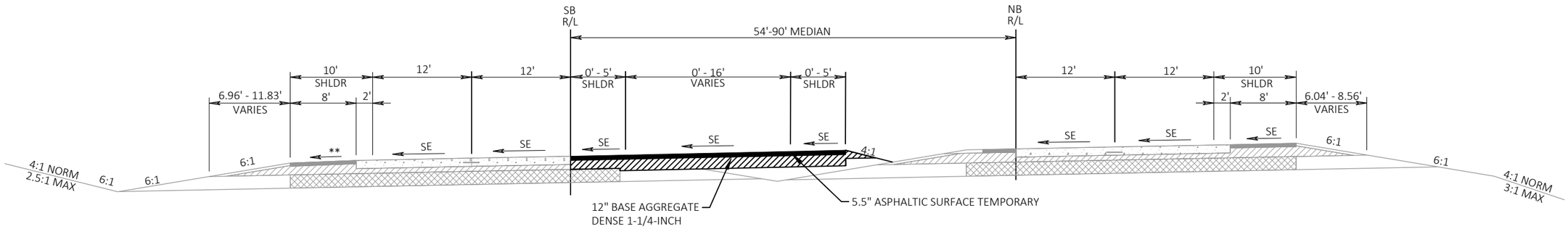
(2) RELIEF TRENCH AT SAG POINTS OR EVERY 250 FT ON LOW SIDE OF SUPERELEVATION ONLY

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	EXISTING TYPICAL SECTIONS - USH 51	SHEET 5	E



TYPICAL FINISHED SECTION - TEMPORARY CROSSOVER

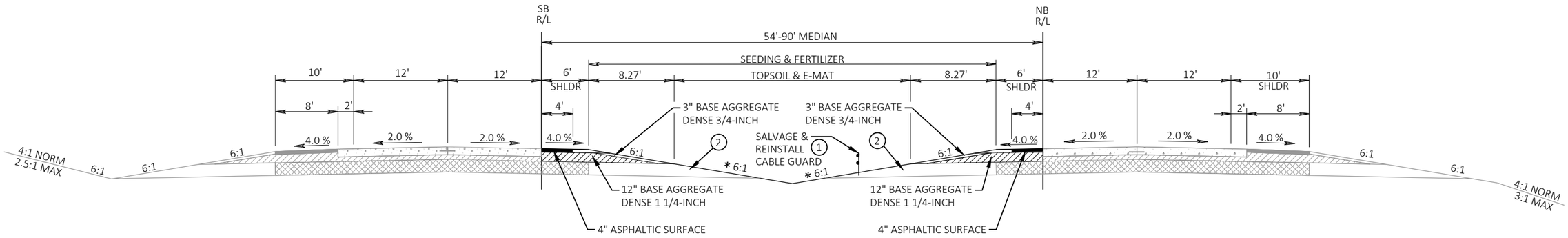
STA 335'X'+82.29 - STA 363'X'+16.72



TYPICAL SUPERELEVATION FINISHED SECTION - TEMPORARY CROSSOVER

STA 335'X'+82.29 - STA 363'X'+16.72

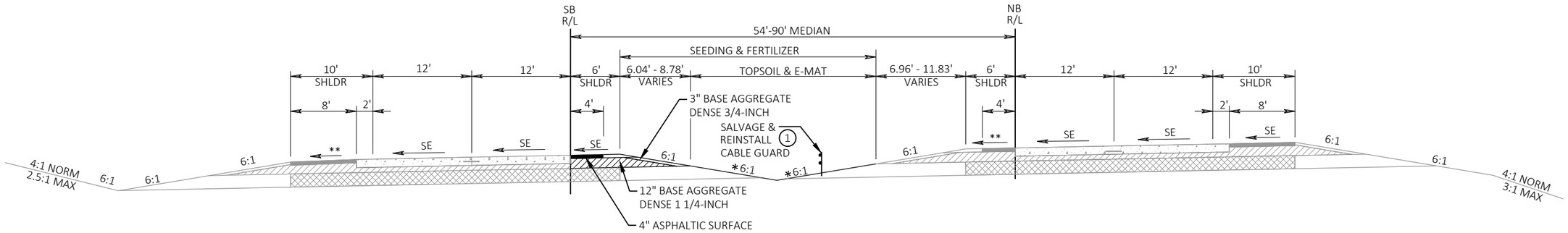
PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TYPICAL SECTIONS - TEMPORARY CROSSOVERS	SHEET 6	E



TYPICAL FINISHED SECTION - USH 51 (SHOULDER REPLACEMENT)

STA 737'NB'+76.25 - STA 747'NB'+75.00 (SB SHOULDER)
STA 744'NB'+50.00 - STA 756'NB'+25.00 (NB SHOULDER)
STA 762'NB'+93.91 - STA 763'NB'+21.20 (SB SHOULDER)
IN AREAS WHERE EXISTING SHOULDER WAS REMOVED

* 10:1 SLOPES REQUIRED FOR SALVAGED AND REINSTALLED THRIE BEAM AND BULL NOSE TERMINAL. SEE SDD "STEEL THRIE BEAM BULLNOSE TERMINAL" FOR ADDITIONAL INFORMATION.



TYPICAL SUPERELEVATED FINISHED SECTION - USH 51 (SHOULDER REPLACEMENT)

STA 735'NB'+77.59 - STA 737'NB'+76.25 (SB SHOULDER)
STA 756'NB'+25.00 - STA 762'NB'+93.91 (SB SHOULDER)
IN AREAS WHERE EXISTING SHOULDER WAS REMOVED

** THE LOW SIDE SHOULDER SLOPE ON SUPERELEVATED SECTION EQUALS THE SUPERELEVATION RATE WHEN THE SUPERELEVATION RATE IS GREATER THAN 4%. IF THE SUPERELEVATION RATE IS LESS THAN OR EQUAL TO 4%. THE LOW SIDE SHOULDER SLOPE IS 4%. HIGH SIDE SHOULDER SLOPE ON SUPERELEVATED SECTIONS EQUALS THE SUPERELEVATION RATE. SEE SUPERELEVATION TABLES FOR SE

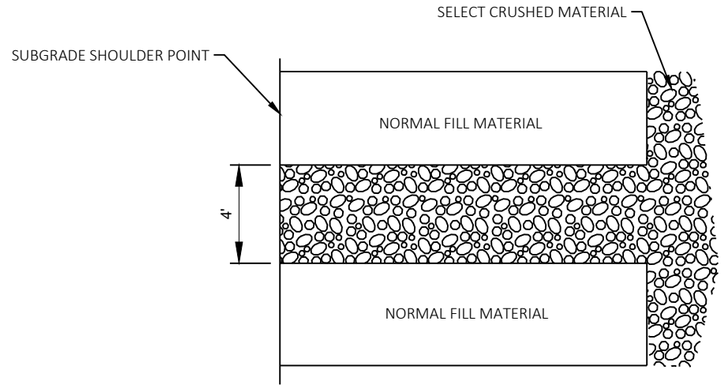
(1) STA 721'NB'+62 - STA 750'NB'+40
STA 752'NB'+50 - STA 757'NB'+00

(2) RELIEF TRENCH AT SAG POINTS OR EVERY 250 FT ON LOW SIDE OF SUPERELEVATION ONLY

ROUTE AND SEAL ALL CONCRETE/ASPHALT JOINTS

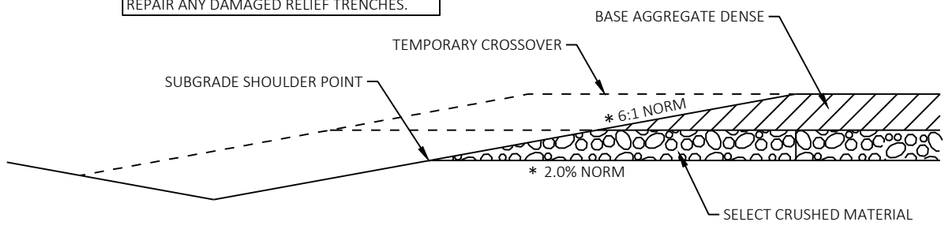
PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TYPICAL SECTIONS - USH 51 SHOULDER RESTORATION	SHEET 7	E

2



PLAN VIEW

NOTE: REMOVE TEMPORARY CROSSOVER AND RESTORE EXISTING RELIEF TRENCH. LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD. UNDISTRIBUTED QUANITY OF SELECT CRUSHED MATERIAL IS INCLUDED TO REPAIR ANY DAMAGED RELIEF TRENCHES.



PROFILE VIEW

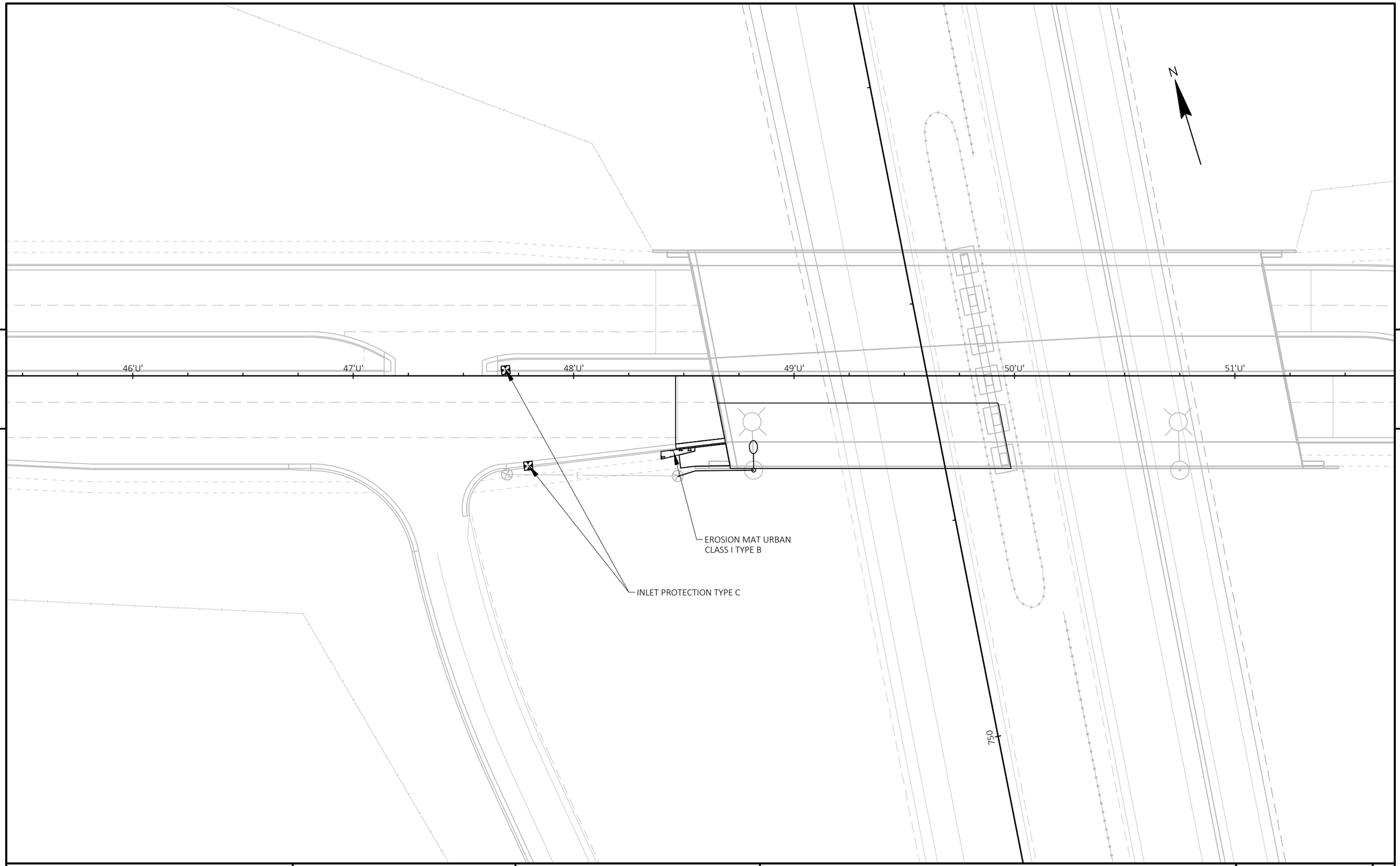
* VARIABLE (SEE TYPICAL SECTIONS)

RELIEF TRENCH DETAIL

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CONSTRUCTION DETAILS	SHEET 8	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 021001-cd

PLOT DATE : 4/25/2022 3:53 PM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:10 FT

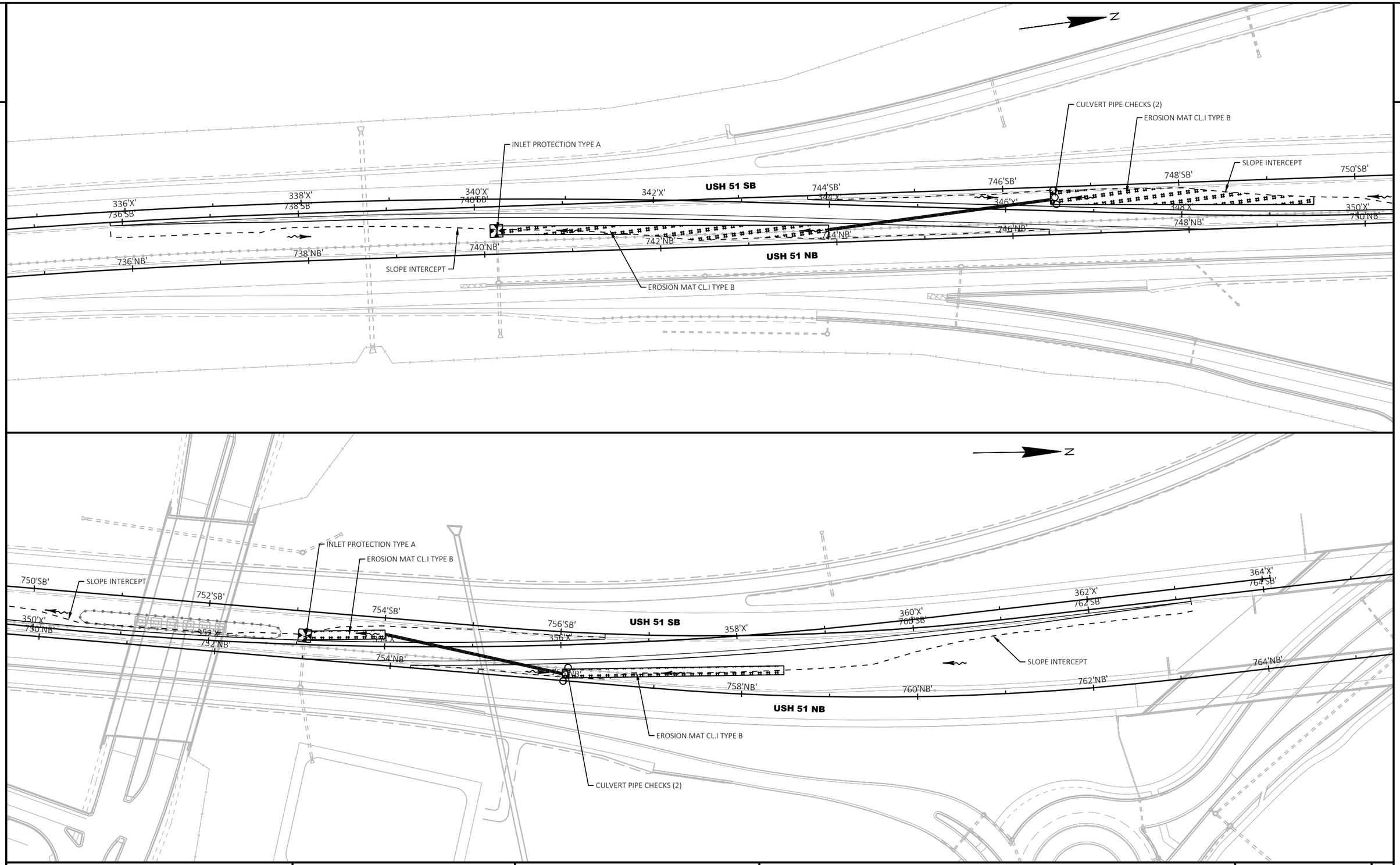


PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	EROSION CONTROL - CTH U	SHEET 9	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\022001_EC_51U.DWG
LAYOUT NAME - PD

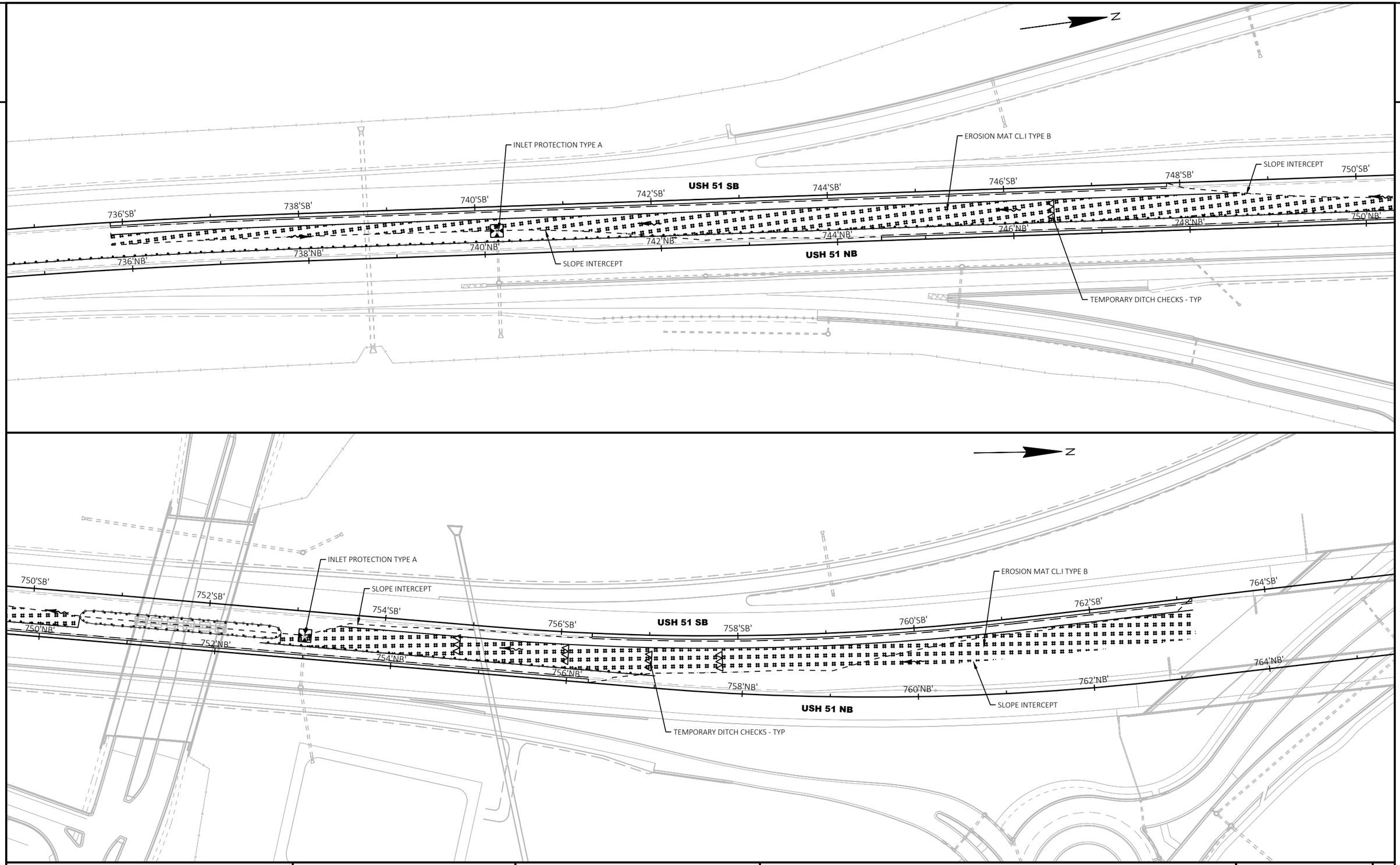
PLOT DATE : 5/17/2022 10:50 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



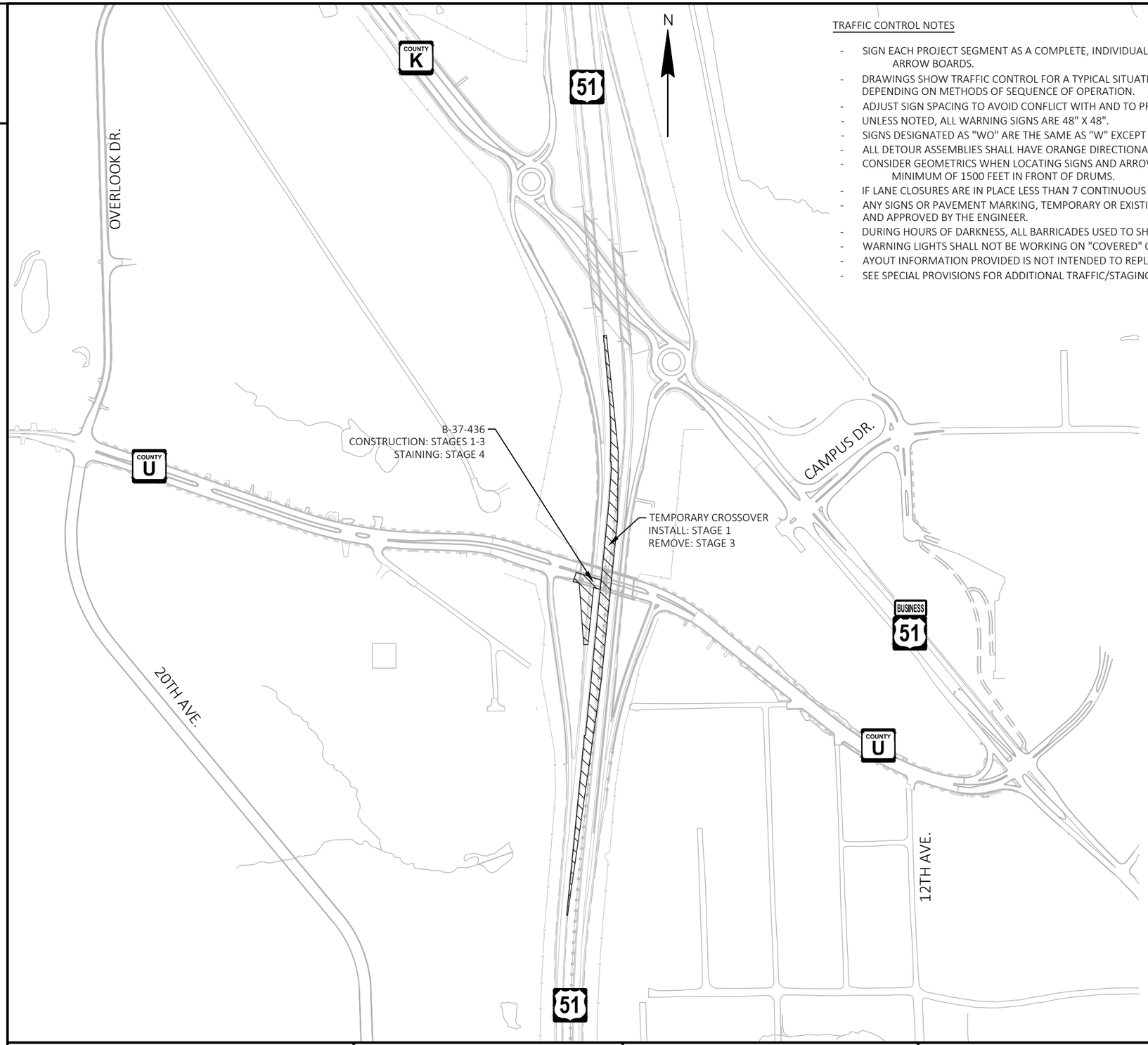
PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	EROSION CONTROL - TEMP CROSSOVER USH 51	SHEET 10	E

2



PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	EROSION CONTROL - USH 51	SHEET 11	E

2



TRAFFIC CONTROL NOTES

- SIGN EACH PROJECT SEGMENT AS A COMPLETE, INDIVIDUAL WORK ZONE/TRAFFIC CONTROL AREA THAT INCLUDES ALL ADVANCED WARNING SIGNING, DRUMS, AND ARROW BOARDS.
- DRAWINGS SHOW TRAFFIC CONTROL FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON METHODS OF SEQUENCE OF OPERATION.
- ADJUST SIGN SPACING TO AVOID CONFLICT WITH AND TO PROVIDE A MINIMUM SPACING OF 200 FEET (500 FEET DESIRABLE) TO EXISTING SIGNS.
- UNLESS NOTED, ALL WARNING SIGNS ARE 48" X 48".
- SIGNS DESIGNATED AS "WO" ARE THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- ALL DETOUR ASSEMBLIES SHALL HAVE ORANGE DIRECTIONAL ARROWS.
- CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM OF 1500 FEET IN FRONT OF DRUMS.
- IF LANE CLOSURES ARE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- ANY SIGNS OR PAVEMENT MARKING, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND APPROVED BY THE ENGINEER.
- DURING HOURS OF DARKNESS, ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH TYPE "A" WARNING LIGHTS.
- WARNING LIGHTS SHALL NOT BE WORKING ON "COVERED" OR "DOWNED" SIGNS OR BARRICADES.
- AYOUT INFORMATION PROVIDED IS NOT INTENDED TO REPLACE WHAT IS PROVIDED IN APPLICABLE STANDARD DETAIL DRAWINGS.
- SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC/STAGING REQUIREMENTS.

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CONSTRUCTION STAGING OVERVIEW	SHEET 12	E

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

▲SIGN NOT REQUIRED IN STAGE 4

OPPOSITE EXISTING SPEED LIMIT SIGN

SPEED LIMIT 65
R2-1
48"X60"

N

BRIDGE ST.
20TH AVE.
STEVENS DR.
SB RAMP TO BRIDGE ST
SB USH 51
NB USH 51
NB RAMP FROM BRIDGE ST

ROAD WORK AHEAD
W20-1A ▲

BRIDGE ST.
SB RAMP FROM BRIDGE ST
SB RAMP TO BRIDGE ST
NB RAMP TO BRIDGE ST

END ROAD WORK
G20-2A
48"X24" ▲

28TH AVE / CTH R
STH 52
STEWART AVE.
SB RAMP TO STH 52
SB RAMP FROM STH 52
SB USH 51
SB RAMP TO WB STH 29
NB USH 51
NB RAMP FROM EB STH 29
NB RAMP TO STH 52
NB RAMP FROM STH 52

ROAD WORK AHEAD
W20-1A ▲

ON RIGHT SIDE OF NB RAMP FROM EB STH 29

ROAD WORK AHEAD
W20-1A ▲

STEWART AVE.
17TH AVE.

ROAD WORK 1 MILE
W20-1F ▲

ON BOTH SIDES OF NB USH 51

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - USH 51 AND RAMP ADVANCED WARNING	SHEET 13	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026010_TC_ADVANCE.DWG
LAYOUT NAME - Plan 1 IN 1000 FT
PLOT DATE : 5/17/2022 11:16 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ############

2

2

SEE CTH U DETAILS

OVERLOOK DR.

N

20TH AVE.

CTH U

CTH K

END ROAD WORK
G20-2A
48"X24"

SB RAMP TO CTH K/BUS 51

SB USH 51

NB USH 51

SB RAMP FROM CTH U

SB RAMP FROM CTH K/BUS 51 (CLOSED)

NB RAMP TO CTH U

NB RAMP TO CTH K/BUS 51

NB RAMP FROM CTH K/BUS 51

SPEED LIMIT 65
R2-1
48"X60"

STAGES 1B,3A

END ROAD WORK
G20-2A ▲
48"X24"

STEVENS DR.

12TH AVE.

BUSINESS 51

SEE CTH U DETAILS

▲SIGN NOT REQUIRED IN STAGE 4

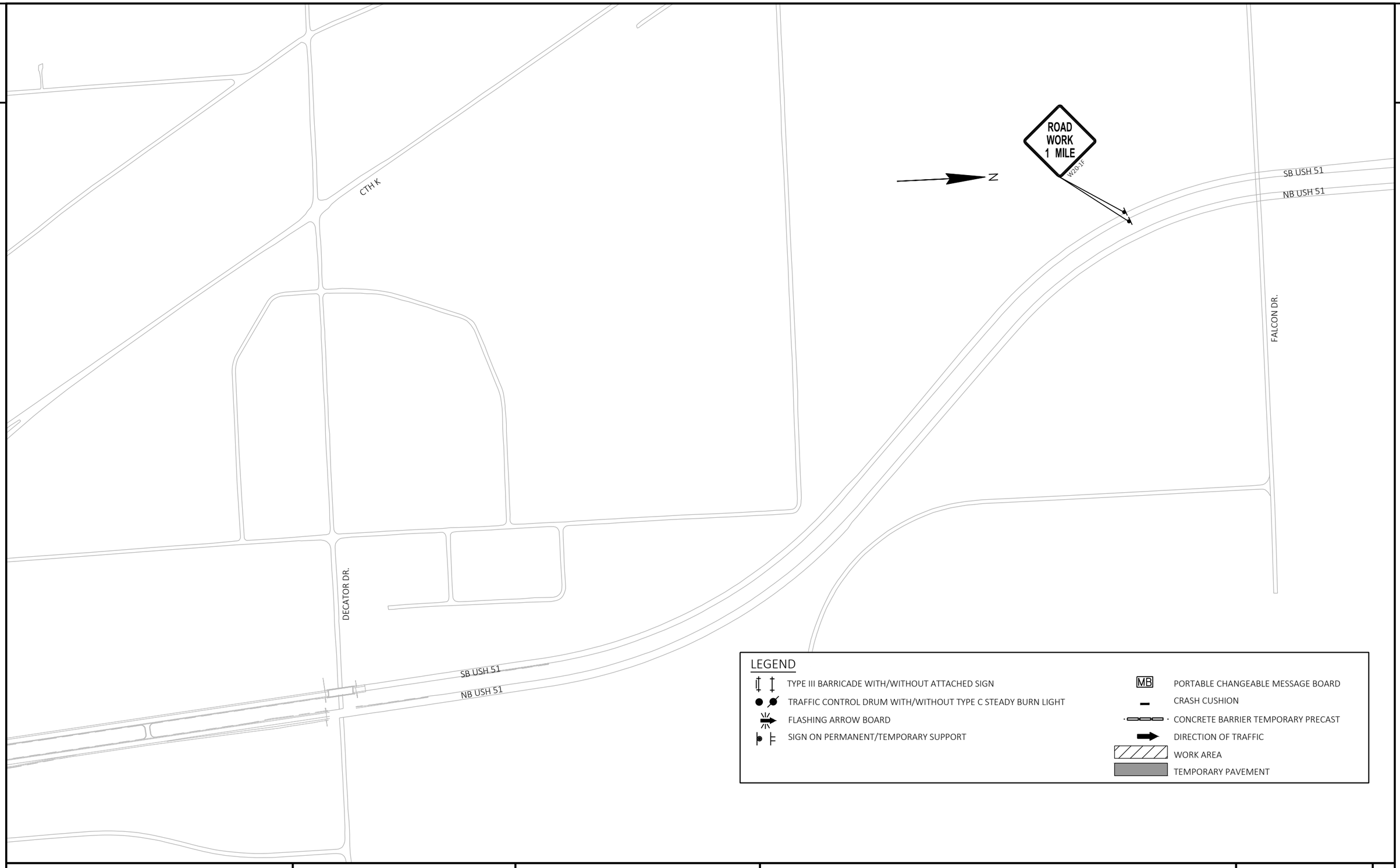
LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - USH 51 AND RAMP ADVANCED WARNING	SHEET 14	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026010_TC_ADVANCE.DWG
LAYOUT NAME - Plan 1 IN 1000 FT (2)
PLOT DATE : 5/17/2022 11:16 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ############
WISDOT/CADDS SHEET 42

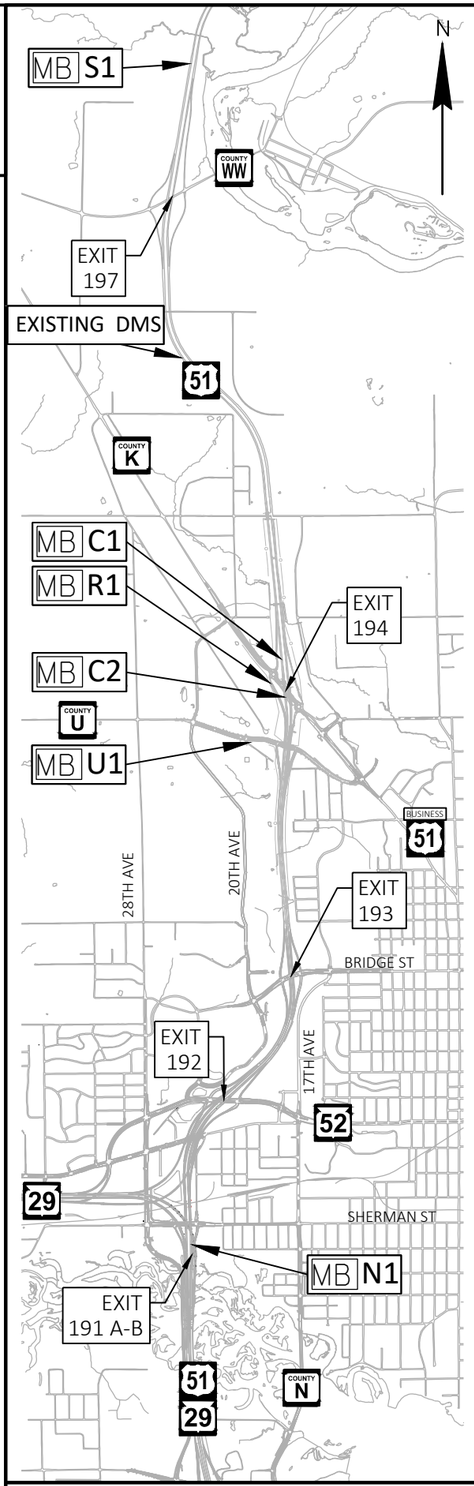
2



PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - USH 51 AND RAMP ADVANCED WARNING	SHEET 15	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026010_TC_ADVANCE.DWG
LAYOUT NAME - Plan 1 IN 1000 FT (3)

PLOT DATE : 5/17/2022 11:16 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ############



GENERAL NOTES FOR CHANGEABLE MESSAGE BOARDS

PCMS=PORTABLE CHANGEABLE MESSAGE SIGN

CONSIDER CLEAR ROADWAY GEOMETRICS WHEN LOCATING MESSAGE SIGNS. PLACE THE SIGNS SO THE DRIVER HAS A CLEAR VIEW OF THE MESSAGE FOR A MINIMUM OF 1500 FEET.

MESSAGE SIGNS SHOULD BE PLACED AS FAR AWAY FROM THE LIVE TRAFFIC LANES AS POSSIBLE WITHOUT HAMPERING VISIBILITY. IN ADVANCE OF INTERSTATE CONSTRUCTION PROJECTS, THE SIGNS SHOULD BE PLACED ON THE BACKSLOPE BEYOND THE DITCH. THE LOCATION SELECTED SHOULD BE AT OR SLIGHTLY ABOVE THE ROADWAY.

FOR INTERMITTENT WORK SUCH AS A FREEEWAY LANE CLOSURE, OR WHERE SITE CONDITIONS DO NOT ALLOW OTHERWISE, THE SIGNS MAY BE PLACED ON THE SHOULDER. THE SITE SHOULD BE VISITED TO ASSURE VISIBILITY, SAFETY AND MAINTENANCE CONSIDERATIONS. A TAPER OF FIVE (5) REFLECTORIZED DRUMS OR SHALL BE PLACED AHEAD OF A PCMS THAT IS PLACED ON THE SHOULDER IF IT IS NOT SHIELDED BY A BARRIER.

MB XX PCMS SITE LOCATONS

SITE	APPROXIMATE LOCATION
N1	ON NB USH 51 APPROXIMATELY 500 FT SOUTH OF SHERMAN ST BRIDGE
S1	ON SB USH 51 APPROXIMATELY ½ MILE NORTH OF CTH WW OFF RAMP
R1	ON SB CTH K/BUS 51 ON RAMP TO USH 51
U1	ON EB CTH U EAST OF ARTHUR AVE.
C1	ON SB USH 51 APPROXIMATELY 2600 FT PRIOR TO TEMPORARY CROSSOVER
C2	ON SB USH 51 APPROXIMATELY 1500 FT PRIOR TO TEMPORARY CROSSOVER

		7 DAYS PRIOR TO STAGE 1		STAGE 1 STAGE 3		STAGE 2 (ON CROSSOVER)		STAGE 2 (ON LANES)		7 DAYS PRIOR TO STAGE 4		STAGE 4
SITE NO.	ROADWAY CONDITION/ CONSTRUCTION	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)	NO MESSAGE BOARD USED
SITE N1 (CELLULAR)	GENERAL	ROAD WORK BEGINS	MONTH DAY TIME	LEFT LANE CLOSED	1 MILE AHEAD	LEFT LANE CLOSED	1 MILE AHEAD	(ON SITE- NO MESSAGE)		NO MESSAGE BOARD USED		
SITE S1 (CELLULAR)	GENERAL	ROAD WORK BEGINS		XXX LANE CLOSED	2 MILES AHEAD	LEFT LANE CLOSED	2 MILES AHEAD	(ON SITE- NO MESSAGE)		ROAD WORK BEGINS	XXX LANE CLOSED	2 MILES AHEAD
SITE R1	RAMP CLOSURE ADVANCE NOTICE	RAMP TO CLOSE	MONTH DAY TIME	NO MESSAGE BOARD USED						RAMP TO CLOSE	MONTH DAY TIME	NO MESSAGE BOARD USED
SITE U1	CTH U CLOSURE ADVANCE NOTICE	BRIDGE TO CLOSE	MONTH DAY TIME	NO MESSAGE BOARD USED								
SITE C1	CROSSOVER MESSAGING	NO MESSAGE BOARD USED				TRAFFIC PATTERN CHANGE	1/2 MILE AHEAD	NO MESSAGE BOARD USED				
SITE C2	CROSSOVER MESSAGING	NO MESSAGE BOARD USED				UNEVEN PAVEMENT	ON CURVE	NO MESSAGE BOARD USED				

IN THE EVENT OF AN INCIDENT, NOTIFY THE TRAFFIC MANAGEMENT CENTER AT (800) 375-7302 FOR INCIDENT MANAGEMENT MESSAGING

2

2

SB RAMP TO STH 52

SB USH 51

655'NB'

660'NB'

665'NB'

670'NB'

NB USH 51

LEFT LANE CLOSED 1/2 MILE

W20.5SG

NB RAMP FROM STH 52

SPEED LIMIT 55

W03.5S

STAGES 1B,3A

NORTH 51

SEE "TRAFFIC CONTROL - USH 51 AND RAMP ADVANCED WARNING" FOR ROAD WORK AHEAD AND END ROAD WORK SIGNING

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

N

SB RAMP FROM BRIDGE ST

SB USH 51

670'NB'

675'NB'

680'NB'

685'NB'

NB USH 51

NB RAMP TO BRIDGE ST

50' TYP

SPEED LIMIT 55

R2-1

48"X60"

STAGES 1B,3A

SPEED LIMIT 65

COVER

STAGES 1B,3A

W04.2L

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - NORTHBOUND USH 51 LEFT LANE CLOSURE DETAIL	SHEET 17	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026030_TC_NB_LEFTLANE.DWG
LAYOUT NAME - 655-685

PLOT DATE : 5/17/2022 9:07 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########

2

SB RAMP FROM BRIDGE ST

SB RAMP TO BRIDGE ST

BRIDGE ST.

N

SB USH 51

685'NB'

690'NB'

695'SB'

700'SB'

780' LANE DROP TAPER

695'NB'

700'NB'

NB USH 51

50' TYP

50' TYP

100' TYP

R11-2L 48" X 30"

LANE CLOSED

TYPE III BARRICADE

NB RAMP TO BRIDGE ST

NB RAMP FROM BRIDGE ST

WO4-5 48"X48"

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

SB RAMP TO BRIDGE ST

N

700'SB'

705'SB'

SB USH 51

710'SB'

100' TYP

700'NB'

705'NB'

NB USH 51

710'NB'

NB RAMP FROM BRIDGE ST

50' TYP

EXISTING GORE PAVEMENT MARKINGS TO REMAIN

R11-2L 48" X 30"

LANE CLOSED

TYPE III BARRICADE

25' TYP

STA 715+00 - SEE STAGING DETAILS

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - NORTHBOUND USH 51 LEFT LANE CLOSURE DETAIL	SHEET 18	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026030_TC_NB_LEFTLANE.DWG
LAYOUT NAME - 685-715

PLOT DATE : 5/17/2022 9:07 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

2

STA 775+00 - SEE STAGING DETAILS

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

100'
TYP

SB RAMP TO CTH K/BUS 51

N

780'SB | 785'SB | 790'SB

SB USH 51

780'NB' | 785'NB' | 790'NB'

NB USH 51

NB RAMP FROM CTH K/BUS 51

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

100'
TYP

SPEED LIMIT 65

COVER
STAGES 1,3,4

N

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

790'SB | 795'SB | 800'SB | 805

SB USH 51

790'NB' | 795'NB' | 800'NB' | 805'N

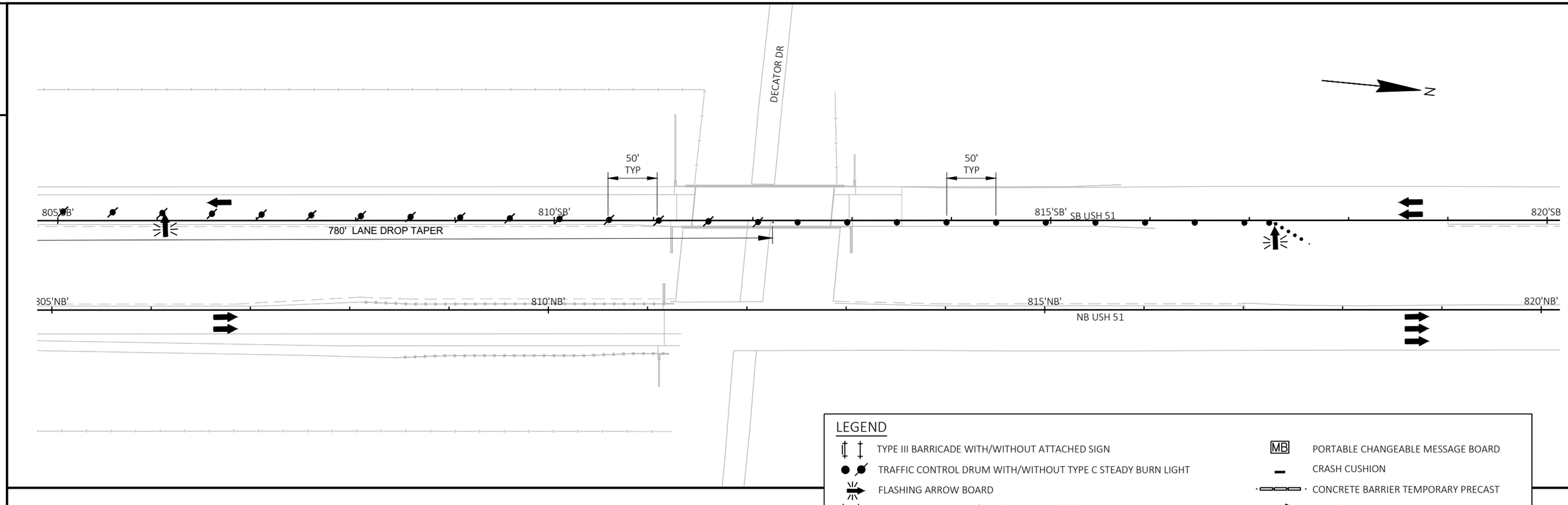
NB USH 51

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - SOUTHBOUND USH 51 LEFT LANE CLOSURE DETAIL	SHEET 19	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026040_TC_SB_LEFTLANE.DWG
LAYOUT NAME - 775-805

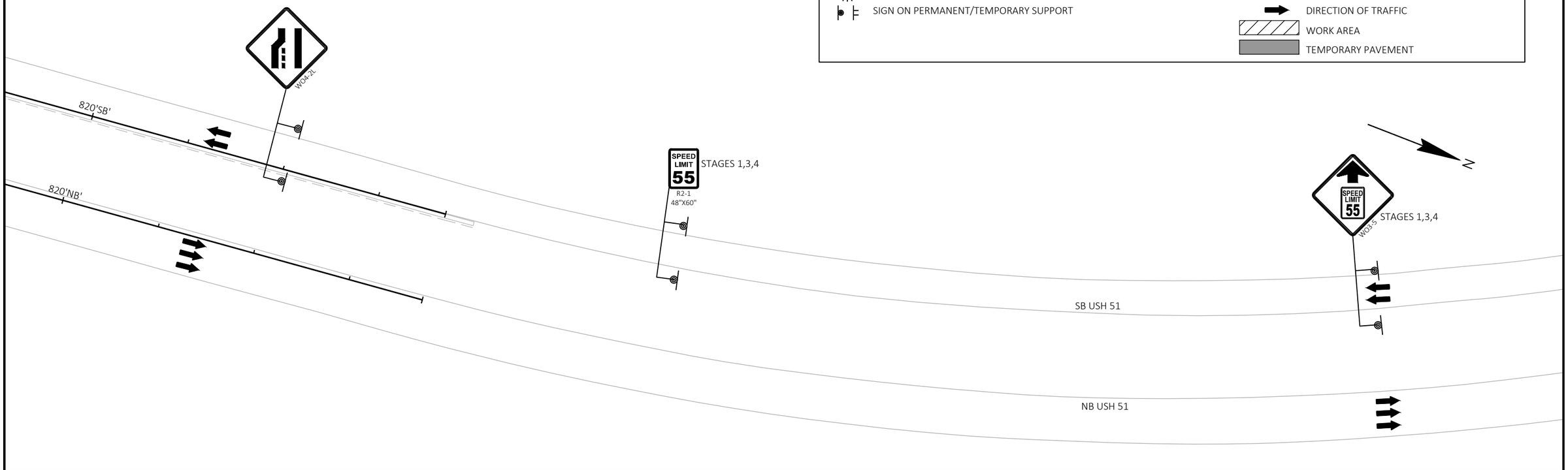
PLOT DATE : 5/17/2022 9:09 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########

2



LEGEND

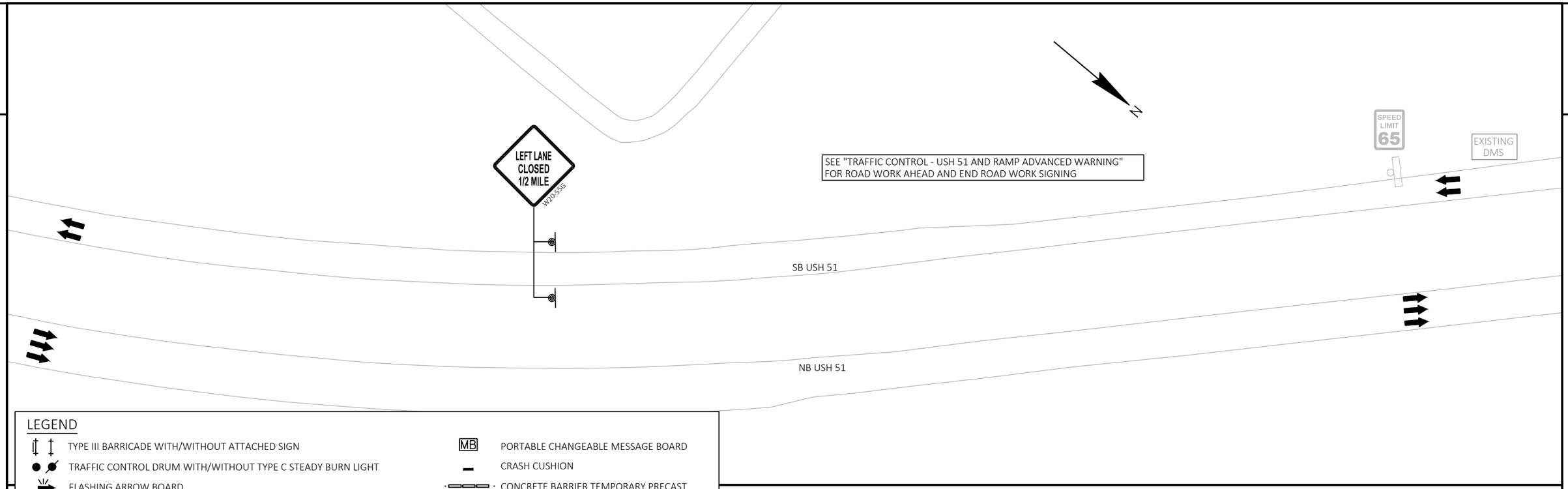
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT



PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - SOUTHBOUND USH 51 LEFT LANE CLOSURE DETAIL	SHEET 20	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026040_TC_SB_LEFTLANE.DWG
LAYOUT NAME - 805-835

PLOT DATE : 5/17/2022 9:09 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########



LEGEND

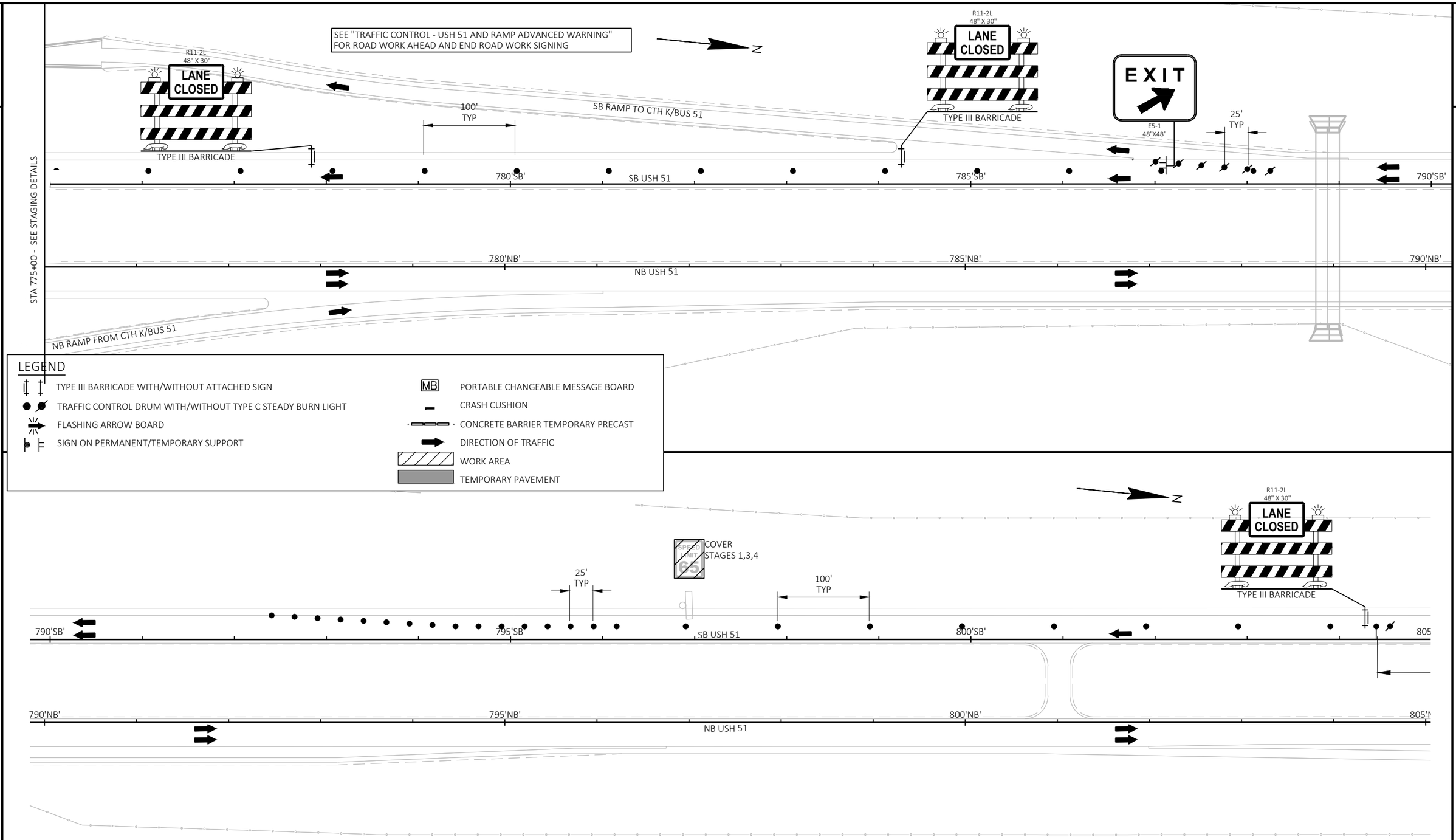
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

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PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - SOUTHBOUND USH 51 LEFT LANE CLOSURE DETAIL	SHEET 21	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026040_TC_SB_LEFTLANE.DWG
LAYOUT NAME - 835-865
PLOT DATE : 5/17/2022 9:09 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ###########
WISDOT/CADDS SHEET 44

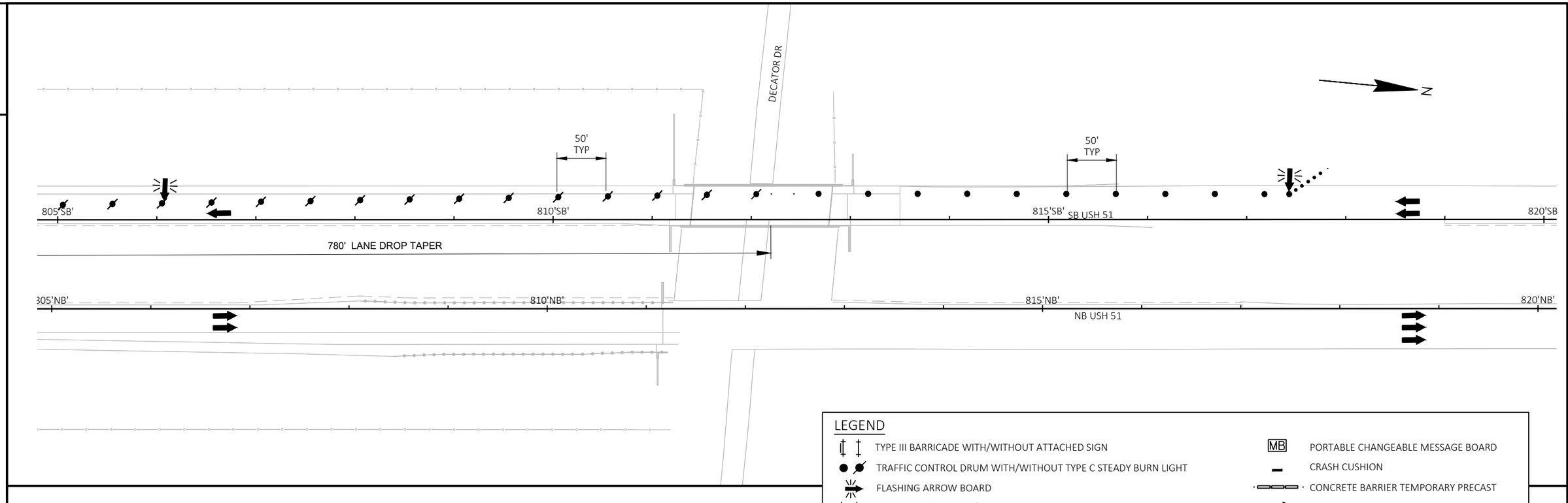
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PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - SOUTHBOUND USH 51 RIGHT LANE CLOSURE DETAIL	SHEET 22	E

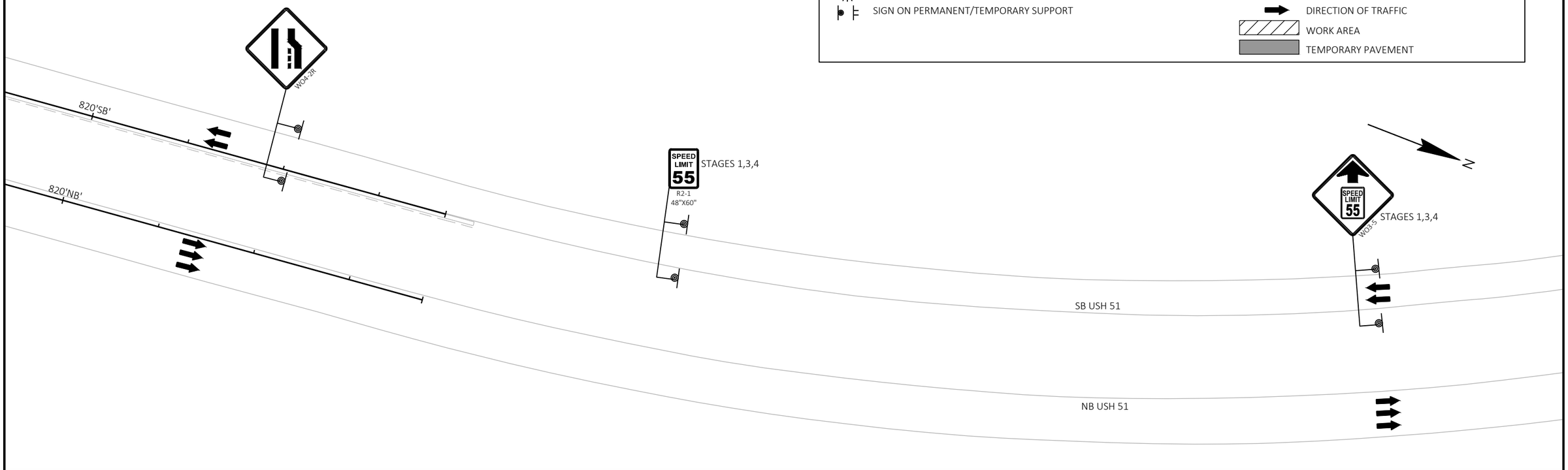
FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026045_TC_SB_RIGHTLANE.DWG
LAYOUT NAME - 775-805
PLOT DATE : 5/17/2022 9:12 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 44

2



LEGEND

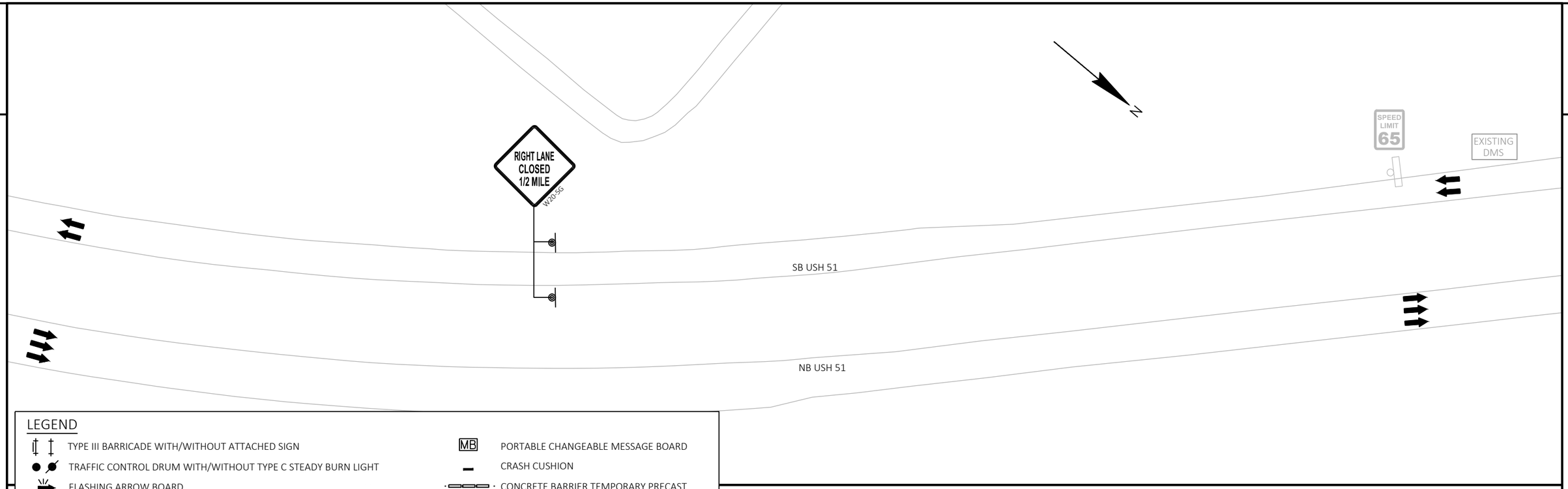
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT



PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - SOUTHBOUND USH 51 RIGHT LANE CLOSURE DETAIL	SHEET 23	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026045_TC_SB_RIGHTLANE.DWG
LAYOUT NAME - 805-835
PLOT DATE : 5/17/2022 9:12 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ############
WISDOT/CADDS SHEET 44

2



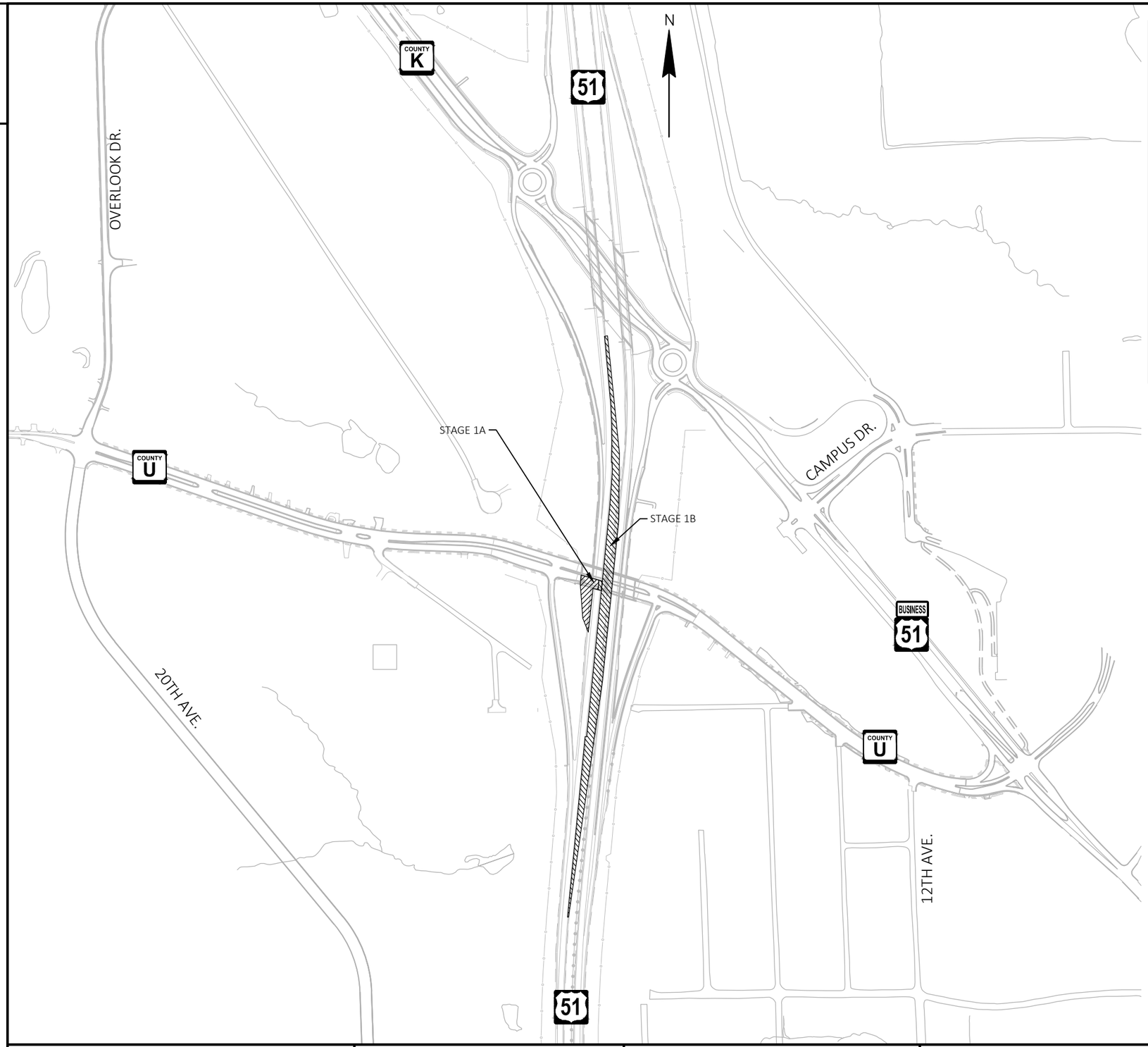
LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

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PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - SOUTHBOUND USH 51 RIGHT LANE CLOSURE DETAIL	SHEET 24	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026045_TC_SB_RIGHTLANE.DWG
LAYOUT NAME - 835-865
PLOT DATE : 5/17/2022 9:12 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 44



STAGE 1A

PURPOSE:
- INSTALL TEMPORARY BARRIER AND PREPARE STAGING AREA ALONG OUTSIDE SHOULDER OF SB USH 51
- BEGIN REMOVALS ON B-37-0436 AND APPROACH

TRAFFIC HANDLING - SEE DETAILS:
- NB USH 51- NO RESTRICTIONS
- SB USH 51 RIGHT LANE CLOSURE

CLOSURES - SEE DETAILS::
- EB CTH U CLOSED AND DETOURED
- EB BIKE ROUTE 6 CLOSED AND DETOURED
- EB CTH U SIDEWALK CLOSED
- USH 51 SB ON RAMP FROM BUSINESS 51/CTH K CLOSED

STAGE 1B

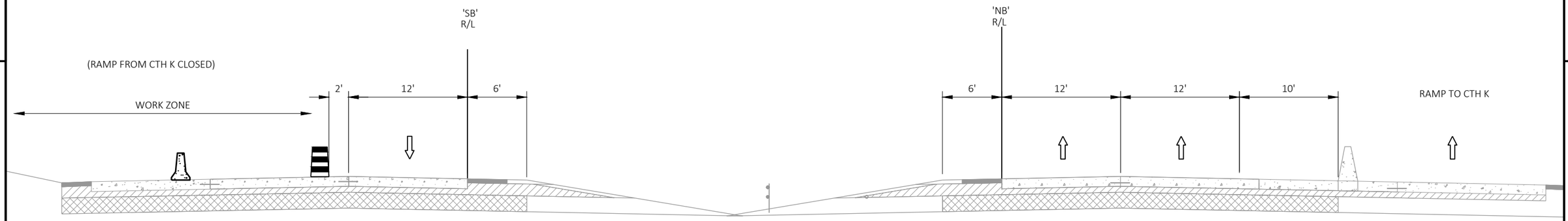
PURPOSE:
- CONTINUE REMOVALS ON B-37-0436 AND APPROACH
- INSTALL TEMPORARY BARRIER AND PREPARE STAGING AREA ALONG INSIDE SHOULDER OF SB USH 51
- CONSTRUCT TEMPORARY SOUTHBOUND CROSSOVER

TRAFFIC HANDLING - SEE DETAILS:
- NB USH 51 LEFT LANE CLOSURE
- SB USH 51 LEFT LANE CLOSURE

CLOSURES - SEE DETAILS:
- EB CTH U CLOSED AND DETOURED
- EB BIKE ROUTE 6 CLOSED AND DETOURED
- EB CTH U SIDEWALK CLOSED
- USH 51 SB ON RAMP FROM BUSINESS 51/CTH K CLOSED

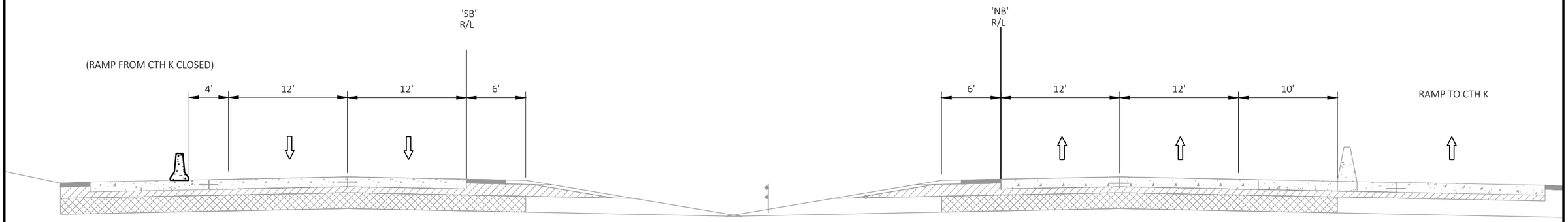
PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 1	SHEET 25	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026100_TC_S1-OVIEW.DWG
LAYOUT NAME - Plan 1 IN 1000 FT
PLOT DATE : 4/27/2022 7:27 AM
PLOT BY : ADAM OSYPOWSKI
PLOT NAME :
PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 42



STAGE 1A

(UNDER CTH U STRUCTURE)



STAGE 1A (WEEKEND)

(UNDER CTH U STRUCTURE)

2

2

SEE "TRAFFIC CONTROL - USH 51 AND RAMP ADVANCED WARNING" FOR ROAD WORK AHEAD AND END ROAD WORK SIGNING

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

WO5-52R
12"X36"

N

SB RAMP FROM CTH U

SB RAMP FROM CTH K /BUS 51 (CLOSED)

CTH U

100' TYP

745'SB' SB USH 51 750'SB' 755'SB' 760'SB'

745'NB' NB USH 51 750'NB' 755'NB' 760'NB'

NB RAMP TO CTH K/BUS 51

NB RAMP TO CTH U

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

SB RAMP FROM CTH K /BUS 51 (CLOSED)

N

100' TYP

760'SB' 765'SB' 770'SB' SB USH 51

760'NB' CTH K/BUSINESS 51 765'NB' 770'NB' NB USH 51

NB RAMP FROM CTH K/BUS 51

STA 775+00 - SEE SB USH 51 RIGHT LANE CLOSURE DETAIL

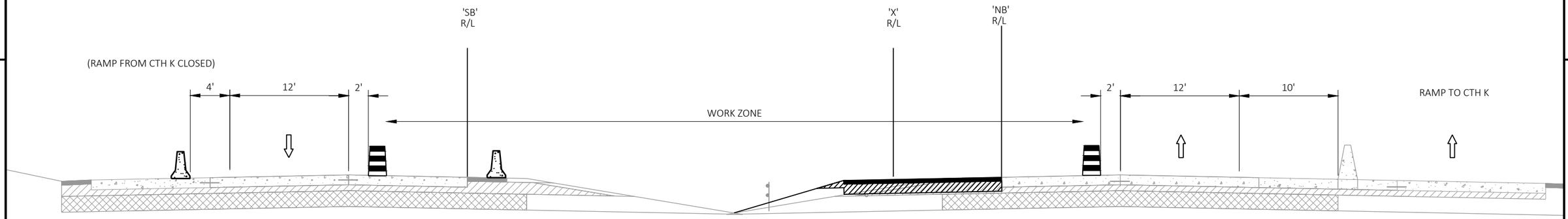
PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 1A - SB USH 51 (OUTSIDE)	SHEET 27	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026115_TC_S1A_OUTSIDE.DWG
LAYOUT NAME - 745-775

PLOT DATE : 5/17/2022 9:14 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########

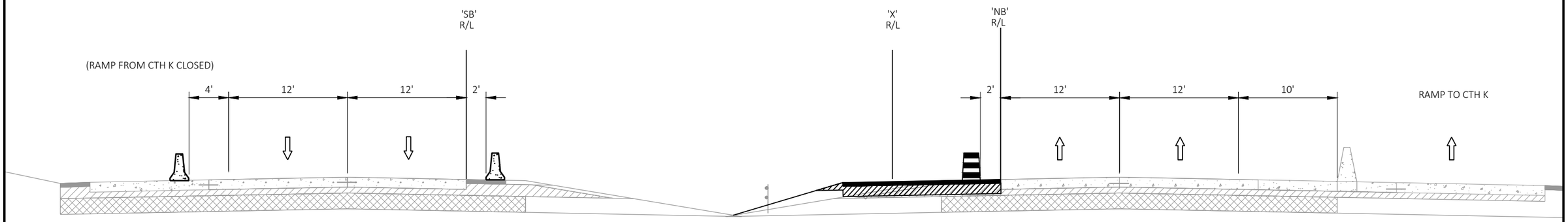
WISDOT/CADDS SHEET 44

2



STAGE 1B

(UNDER CTH U STRUCTURE)



STAGE 1B (WEEKEND)

(UNDER CTH U STRUCTURE)

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 1B - USH 51 TYPICAL SECTION	SHEET 28	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\TC_-TS.DWG
LAYOUT NAME - S1B

PLOT DATE : 4/8/2022 11:02 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:10 FT

2

STA 715+00 - SEE NB USH 51 LEFT LANE CLOSURE DETAIL

SEE "TRAFFIC CONTROL - USH 51 AND RAMP ADVANCED WARNING" FOR ROAD WORK AHEAD AND END ROAD WORK SIGNING

SPEED LIMIT 65

SOUTH 51

N

720'SB'

SB USH 51

325'X'
725'SB'

330'X'
730'SB'

720'NB'

NB USH 51

725'NB'

730'NB'

100' TYP

NORTH 51

SPEED LIMIT 55
R2-1
48"X60"

SPEED LIMIT 65
COVER

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

MOVE SOUTH 51 MILE 194 .2

N

WO4-5
48"X48"

SB RAMP FROM CTH U

25' TYP

50' TYP

335'X'
735'SB'

340'X'
740'SB'

745'SB'

345'X'

330'X'
730'SB'

100' TYP

100' TYP

735'NB'

740'NB'

745'NB'

730'NB'

SB USH 51

NB USH 51

NB RAMP TO CTH K/BUS 51

NB RAMP TO CTH U

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 1B - USH 51 (MEDIAN)	SHEET 29	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026125_TC_S1B_MEDIAN.DWG
LAYOUT NAME - 715-745

PLOT DATE : 5/17/2022 9:16 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

2

2

SB RAMP FROM CTH U

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

CTH U

WO5-52R
12"X36"
BARRIER INSTALLED IN STAGE 1A

N

SB RAMP FROM CTH K /BUS 51
(CLOSED)

745'SB'
SB USH 51
750'SB'
755'SB'
100'
TYP
360'X'
760'SB'
345'X'
350'X'
355'X'
745'NB'
NB USH 51
750'NB'
755'NB'
100'
TYP
760'NB'

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

NB RAMP TO CTH K/BUS 51

MOVE
NORTH
51
MILE
194
.4

NB RAMP TO CTH U

MOVE
SOUTH
51
MILE
194
.6

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

SB RAMP FROM CTH K /BUS 51
(CLOSED)

N

360'X'
760'SB'
765'SB'
100'
TYP
770'SB'
SB USH 51

CTH K/BUSINESS 51

760'NB'
765'NB'
770'NB'
NB USH 51

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

NB RAMP FROM CTH K/BUS 51

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

STA 775+00 - SEE SB USH 51 LEFT LANE CLOSURE DETAIL

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 1B - USH 51 (MEDIAN)	SHEET 30	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026125_TC_S1B_MEDIAN.DWG
LAYOUT NAME - 745-775

PLOT DATE : 5/17/2022 9:17 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########

2

2

PLACE 350' FROM INTERSECTION

ROAD WORK AHEAD W20-1A

OVERLOOK DR.

M4-9BL 30"X24"

DETOUR

M4-9BR 30"X24"

WO1-6 48" X 24"

TYPE III BARRICADE

N

END ROAD WORK G20-2A 48"X24"

20

CTH U

25

30

ROAD WORK AHEAD W20-1A

WO1-4R

R9-9A 30"X18" SIDEWALK CLOSED AHEAD

M4-9BL 30"X24" DETOUR

120' LANE SHIFT TAPER

20TH AVE.

ROAD WORK AHEAD W20-1A

PLACE 350' FROM INTERSECTION

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

R11-2L 48" X 30"

LANE CLOSED

TYPE III BARRICADE

R11-2L 48" X 30"

LANE CLOSED

TYPE III BARRICADE

N

30

35

CTH U

40

45

ROAD CLOSED AHEAD W20-3A

DETOUR AHEAD W20-2A

DETOUR M4-8 24"X12"

EAST M3-2 24"X12"

COUNTY U M1-5A 24"X24"

MO5-1R 21"X21"

ARTHUR AVE.

ROAD CLOSED 500 FT W20-3D

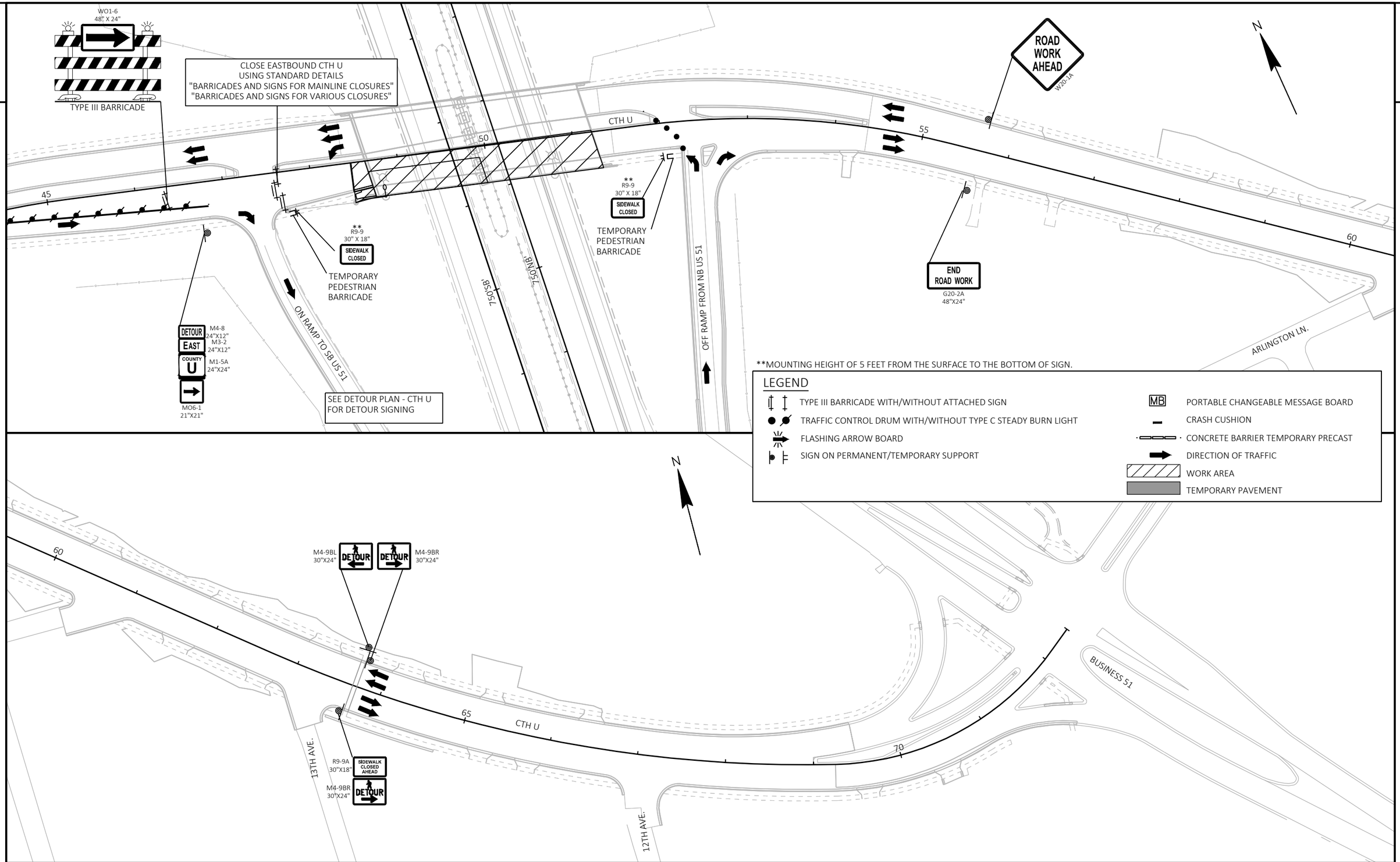
SHIFT USING TURN LANE TAPER

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGES 1-3 - CTH U	SHEET 31	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026150_TC_CTHU.DWG
LAYOUT NAME - 1545

PLOT DATE : 5/17/2022 9:18 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

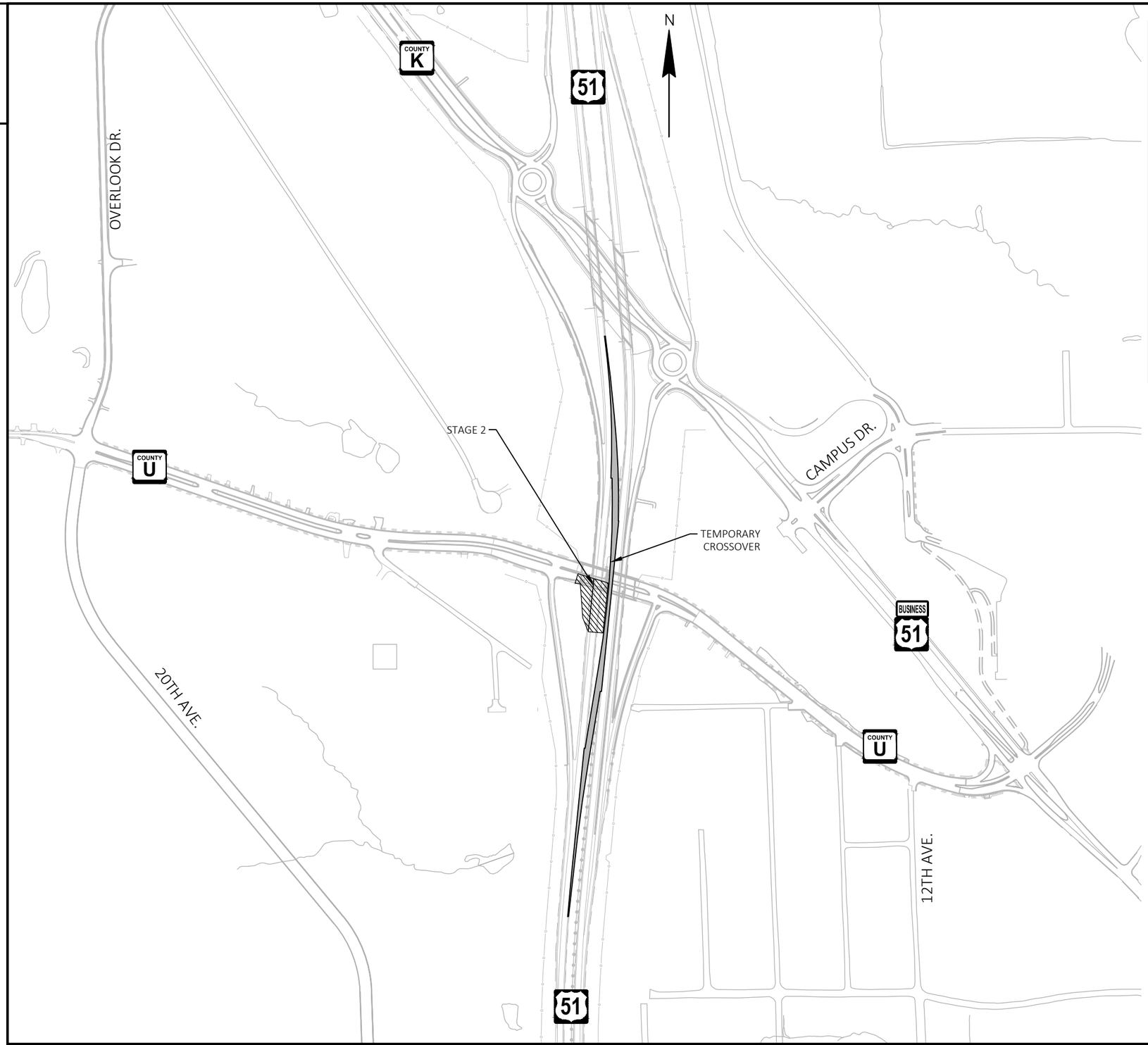


PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGES 1-3 - CTH U	SHEET 32	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026150_TC_CTHU.DWG
LAYOUT NAME - 4575

PLOT DATE : 5/17/2022 9:18 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########

2



STAGE 2

PURPOSE:
- REMOVE B-37-0436 GIRDERS
- INSTALL B-37-0436 GIRDERS

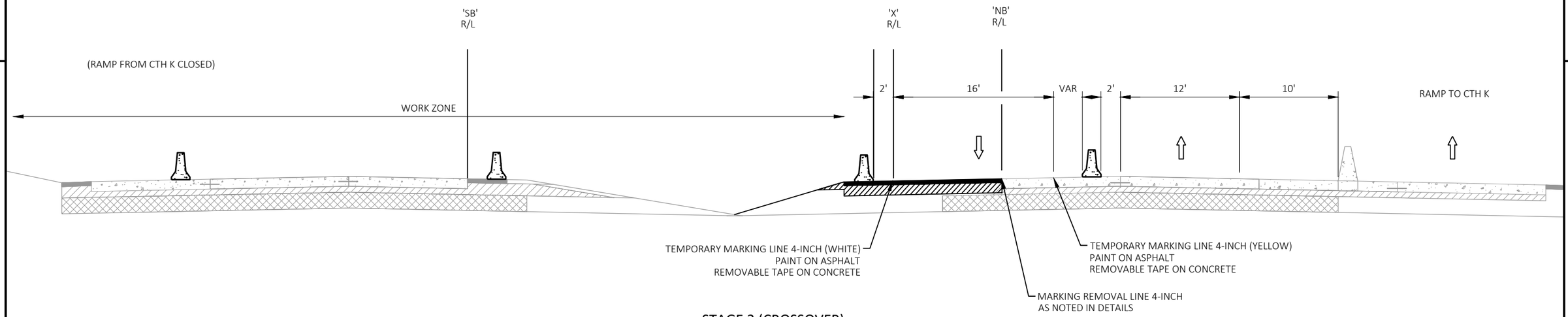
TRAFFIC HANDLING - SEE DETAILS:
- NB USH 51 LEFT LANE CLOSURE
- SB USH 51 RIGHT LANE CLOSURE; ON TEMPORARY CROSSOVER

CLOSURES - SEE DETAILS:
- EB CTH U CLOSED AND DETOURED
- EB BIKE ROUTE 6 CLOSED AND DETOURED
- EB CTH U SIDEWALK CLOSED
- USH 51 SB ON RAMP FROM BUSINESS 51/CTH K CLOSED

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 2	SHEET 33	E

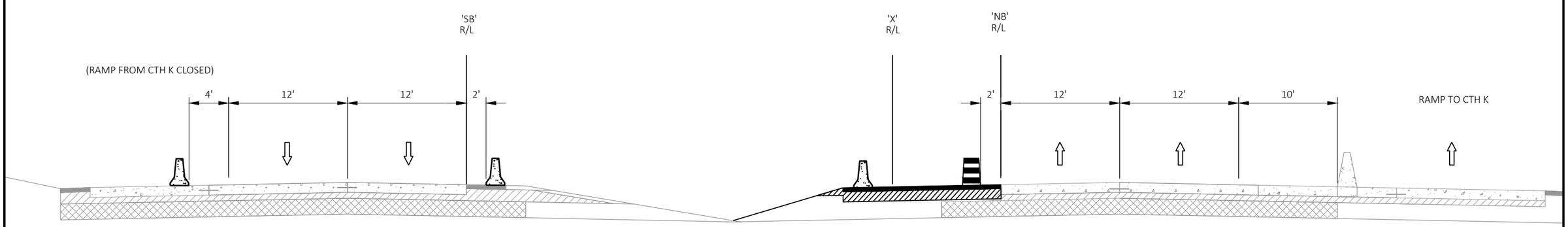
FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026200_TC_S2-OVIEW.DWG
LAYOUT NAME - Plan 1 IN 1000 FT
PLOT DATE : 4/7/2022 2:47 PM
PLOT BY : ADAM OSYPOWSKI
PLOT NAME :
PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 42

2



STAGE 2 (CROSSOVER)

(UNDER CTH U STRUCTURE)



STAGE 2 (WEEKEND/NON-CROSSOVER)

(UNDER CTH U STRUCTURE)

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 2 - USH 51 TYPICAL SECTION	SHEET 34	E

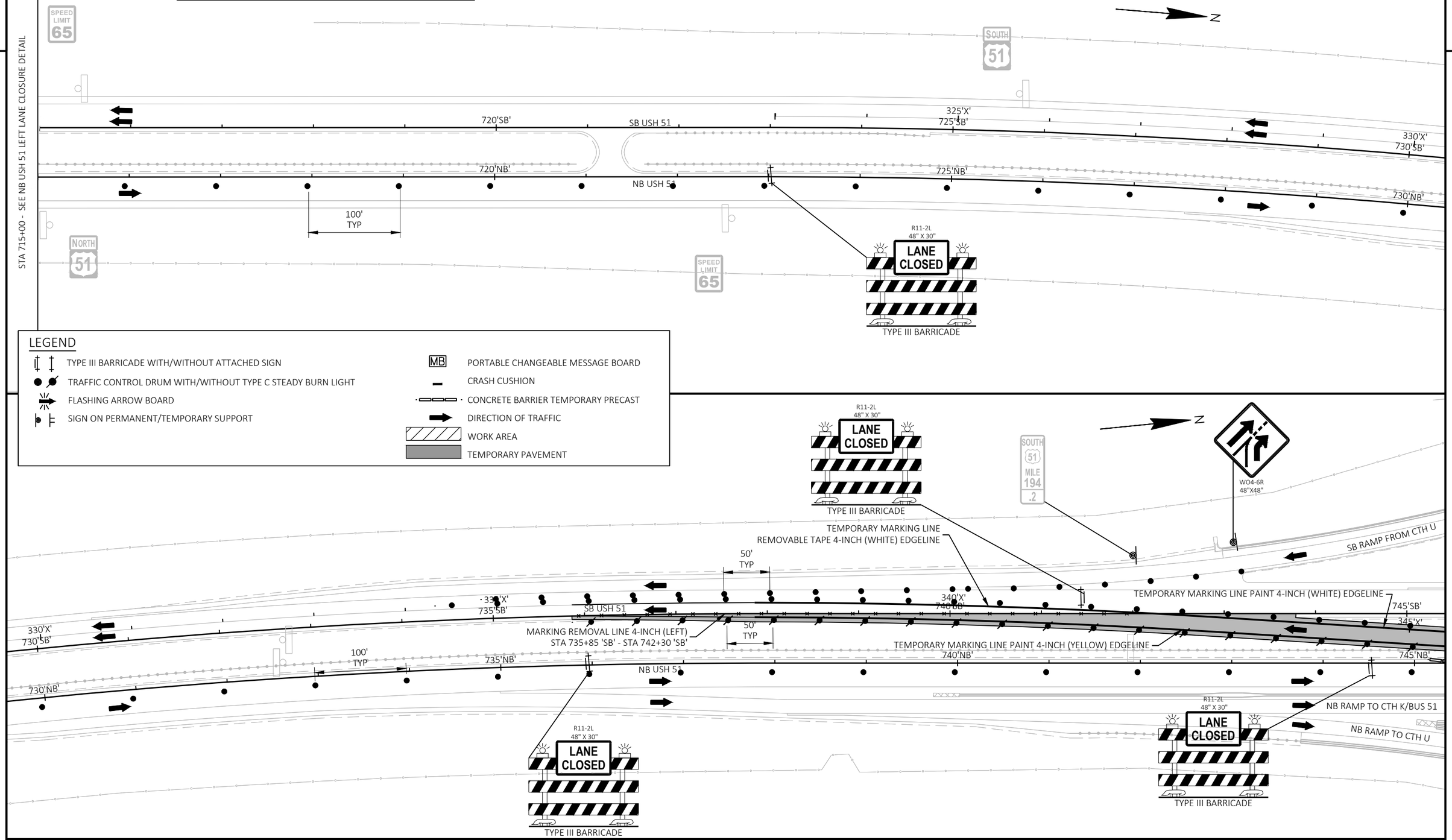
FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\TC_-TS.DWG
LAYOUT NAME - S2

PLOT DATE : 4/14/2022 7:01 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:10 FT

2

STA 715+00 - SEE NB USH 51 LEFT LANE CLOSURE DETAIL

SEE "TRAFFIC CONTROL - USH 51 AND RAMP ADVANCED WARNING" FOR ROAD WORK AHEAD AND END ROAD WORK SIGNING



PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 2 - USH 51 (CROSSOVER)	SHEET 35	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026215_TC_S2_CROSSOVER.DWG
LAYOUT NAME - 715-745

PLOT DATE : 5/17/2022 9:20 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

2

2

TEMPORARY MARKING LINE
PAINT 4-INCH (WHITE) EDGELINE

SB RAMP FROM CTH U

WO1-6
48" X 24"

TYPE III BARRICADE

WO4-3R
48"X48"

WO5-52R
12"X36"

CTH U

RETAIN BARRIER FOR NON-CROSSOVER/WEEKEND TRAFFIC

R11-2
48" X 30"
ROAD CLOSED

TYPE III BARRICADE

WO1-6
48" X 24"

TYPE III BARRICADE

SB RAMP FROM CTH K /BUS 51
(CLOSED)

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH (WHITE) EDGELINE

50'
TYP

360'X'
760'SB

745'SB'
345'X'
SB USH 51

750'SB'

TEMPORARY MARKING LINE PAINT 4-INCH (WHITE) EDGELINE

755'SB'

355'X'

50'
TYP

745'NB'
NB USH 51

350'X'
750'NB

755'NB'

TEMPORARY MARKING LINE
PAINT 4-INCH (YELLOW) EDGELINE

760'NB'

25'
TYP

25'
TYP

100'
TYP

NB RAMP TO CTH K/BUS 51

MARKING REMOVAL LINE 4-INCH (LEFT)
STA 748+25 'NB' - STA 753+05 'NB'

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH (YELLOW) EDGELINE

WO5-52L
12"X36"

NB RAMP TO CTH U

TEMPORARY MARKING LINE
PAINT 4-INCH (YELLOW) EDGELINE

NORTH
51
MILE
194
.4

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH (WHITE) EDGELINE

SB RAMP FROM CTH K /BUS 51
(CLOSED)

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

SOUTH
51
MILE
194
.6

MARKING REMOVAL LINE 4-INCH (LEFT)
STA 758+00 'SB' - STA 762+00 'SB'

360'X'
760'SB

50'
TYP

TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW) EDGELINE

765'SB'

100'
TYP

770'SB

SB USH 51

WO24-1L

55
MPH

WO13-1
36"X36"

STA 775+00 MB C2

STA 786+00 MB C1

760'NB'

765'NB'

CTH K/BUSINESS 51

770'NB'

NB USH 51

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

NB RAMP FROM CTH K/BUS 51

STA 775+00 - SEE SB USH 51 RIGHT LANE CLOSURE DETAIL

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 2 - USH 51 (CROSSOVER)	SHEET 36	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026215_TC_S2_CROSSOVER.DWG
LAYOUT NAME - 745-775

PLOT DATE : 5/17/2022 9:20 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ############

2

SEE "TRAFFIC CONTROL - USH 51 AND RAMP ADVANCED WARNING" FOR ROAD WORK AHEAD AND END ROAD WORK SIGNING

STA 715+00 - BOTH NORTHBOUND LANES OPEN

SPEED LIMIT 65

SOUTH 51

N

720'SB'

SB USH 51

325'X'

725'SB'

330'X'

730'SB'

720'NB'

725'NB'

NB USH 51

730'NB'

NORTH 51

SPEED LIMIT 65

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

N

SOUTH 51 MILE 194 .2

SB RAMP FROM CTH U

330'X'

730'SB'

335'X'

735'SB'

SB USH 51

340'X'

740'SB'

745'SB'

345'X'

50' TYP

735'NB'

740'NB'

745'NB'

730'NB'

NB USH 51

NB RAMP TO CTH K/BUS 51

NB RAMP TO CTH U

2

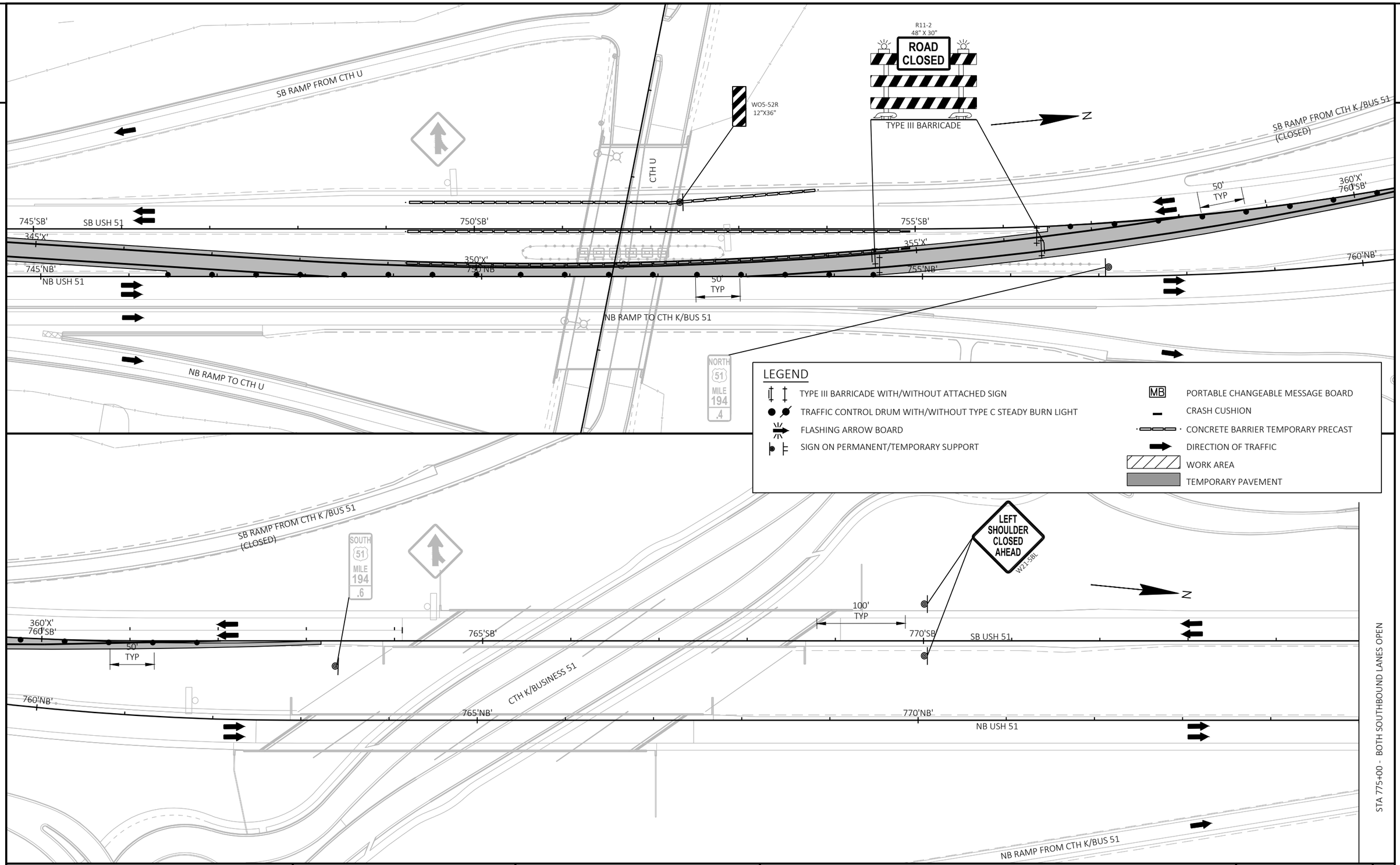
PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 2 - USH 51 (WEEKEND/NON-CROSSOVER)	SHEET 37	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026225_TC_S2_WEEKEND.DWG
LAYOUT NAME - 715-745

PLOT DATE : 5/17/2022 9:21 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

2

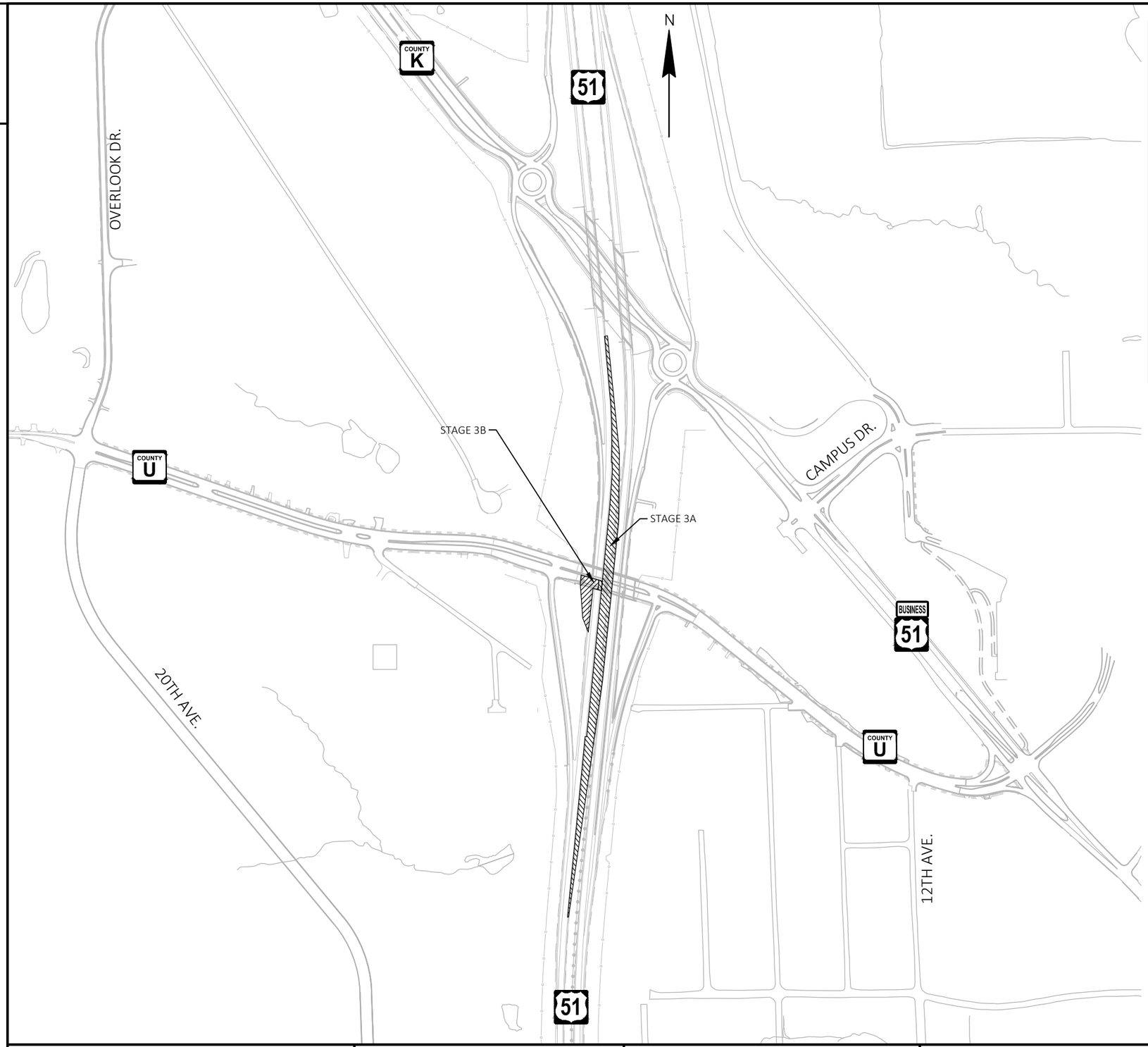


PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 2 - USH 51 (WEEKEND/NON-CROSSOVER)	SHEET 38	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026225_TC_S2_WEEKEND.DWG
LAYOUT NAME - 745-775

PLOT DATE : 5/17/2022 9:21 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44



STAGE 3A

PURPOSE:
- CONSTRUCT B-37-0436 AND APPROACH
- REMOVE TEMPORARY SOUTHBOUND CROSSOVER
- REMOVE TEMPORARY BARRIER AND RESTORE STAGING AREA ALONG INSIDE SHOULDER OF SB USH 51

TRAFFIC HANDLING - SEE DETAILS:
- NB USH 51 LEFT LANE CLOSURE
- SB USH 51 LEFT LANE CLOSURE

CLOSURES - SEE DETAILS:
- EB CTH U CLOSED AND DETOURED
- EB BIKE ROUTE 6 CLOSED AND DETOURED
- EB CTH U SIDEWALK CLOSED
- USH 51 SB ON RAMP FROM BUSINESS 51/CTH K CLOSED

STAGE 3B

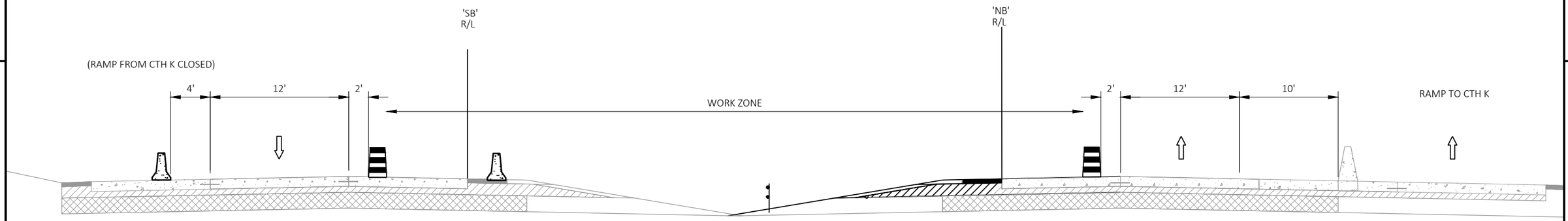
PURPOSE:
- CONTINUE CONSTRUCTION OF B-37-0436 AND APPROACH
- REMOVE TEMPORARY BARRIER AND RESTORE STAGING AREA ALONG OUTSIDE SHOULDER OF SB USH 51

TRAFFIC HANDLING - SEE DETAILS:
- SB USH 51 RIGHT LANE CLOSURE

CLOSURES - SEE DETAILS::
- EB CTH U CLOSED AND DETOURED
- EB BIKE ROUTE 6 CLOSED AND DETOURED
- EB CTH U SIDEWALK CLOSED
- USH 51 SB ON RAMP FROM BUSINESS 51/CTH K CLOSED

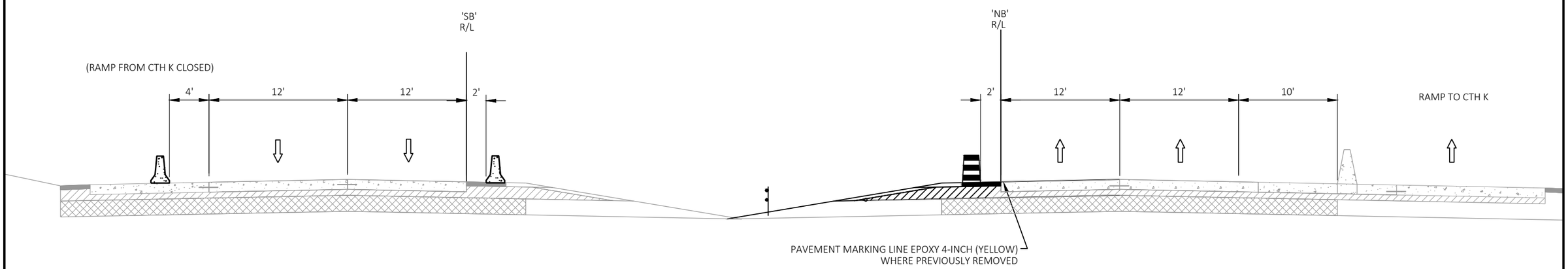
PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 3	SHEET 39	E

2



STAGE 3A

(UNDER CTH U STRUCTURE)



STAGE 3A (WEEKEND)

(UNDER CTH U STRUCTURE)

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 3A - USH 51 TYPICAL SECTION	SHEET 40	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\TC_-TS.DWG
LAYOUT NAME - S3A
PLOT DATE : 4/8/2022 11:01 AM
PLOT BY : ADAM OSYPOWSKI
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

STA 715+00 - SEE NB USH 51 LEFT LANE CLOSURE DETAIL

SEE "TRAFFIC CONTROL - USH 51 AND RAMP ADVANCED WARNING" FOR ROAD WORK AHEAD AND END ROAD WORK SIGNING

SPEED LIMIT 65

SOUTH 51

720'SB'

SB USH 51

325'X'
725'SB'

330'X'
730'SB'

720'NB'

NB USH 51

725'NB'

730'NB'

100' TYP

NORTH 51

SPEED LIMIT 55

R2-1
48"X60"

SPEED LIMIT 65

COVER

R11-2L
48" X 30"

LANE CLOSED

TYPE III BARRICADE

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

N

R11-2L
48" X 30"

LANE CLOSED

TYPE III BARRICADE

SOUTH 51 MILE 194 .2

WO4-5
48"X48"

SB RAMP FROM CTH U

50' TYP

25' TYP

EXISTING GORE PAVEMENT MARKINGS TO REMAIN

335'X'
735'SB'

340'X'
740'SB'

745'SB'

345'X'

330'X'
730'SB'

100' TYP

SB USH 51

MARKING LINE EPOXY 4-INCH (YELLOW)
STA 735+85 'SB' - STA 742+30 'SB'

100' TYP

735'NB'

740'NB'

745'NB'

730'NB'

NB USH 51

NB RAMP TO CTH K/BUS 51

NB RAMP TO CTH U

R11-2L
48" X 30"

LANE CLOSED

TYPE III BARRICADE

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 3A- USH 51 (MEDIAN)	SHEET 41	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026315_TC_S3A_MEDIAN.DWG
LAYOUT NAME - 715-745

PLOT DATE : 5/17/2022 9:23 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

2

2

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

SB RAMP FROM CTH U

WO5-52R
12"X36"

N

BARRIER INSTALLED IN STAGE 1A

BARRIER INSTALLED IN STAGE 1B

CTH U

SB RAMP FROM CTH K /BUS 51
(CLOSED)

745'SB'
SB USH 51
750'SB'
755'SB'
100'
TYP
360'X'
760'SB'
345'X'
745'NB'
NB USH 51
350'X'
750'NB'
355'X'
755'NB'
100'
TYP
760'NB'

MARKING LINE EPOXY 4-INCH (YELLOW)
STA 748+25 'NB' - STA 753+05 'NB'

NB RAMP TO CTH K/BUS 51

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

NB RAMP TO CTH U

NORTH
51
MILE
194
.4

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

SOUTH
51
MILE
194
.6

SB RAMP FROM CTH K /BUS 51
(CLOSED)

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

N

100'
TYP
360'X'
760'SB'
765'SB'
770'SB'
SB USH 51

MARKING LINE EPOXY 4-INCH (YELLOW)
STA 758+00 'SB' - STA 762+00 'SB'

760'NB'
CTH K/BUSINESS 51
765'NB'
770'NB'
NB USH 51

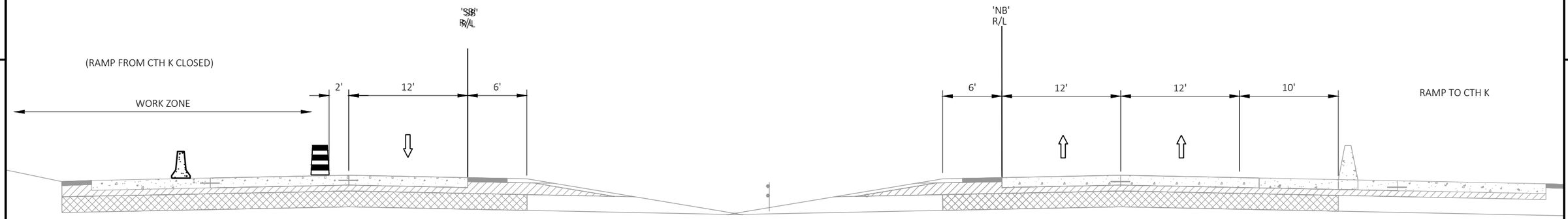
R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

NB RAMP FROM CTH K/BUS 51

STA 775+00 - SEE SB USH 51 LEFT LANE CLOSURE DETAIL

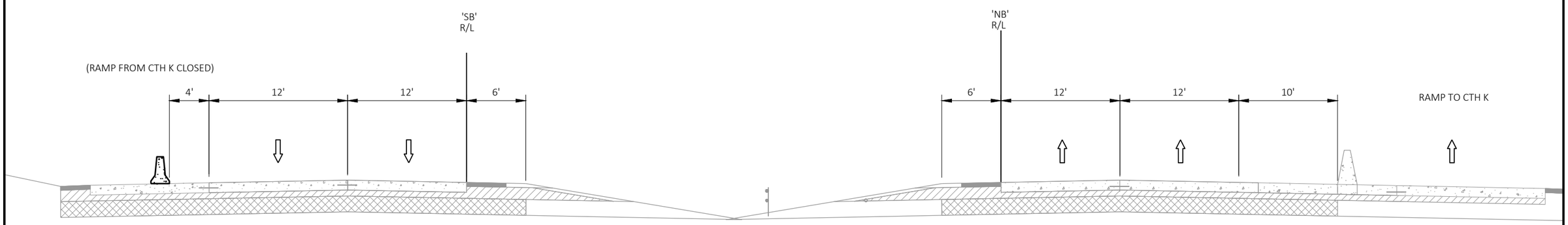
PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 3A - USH 51 (MEDIAN)	SHEET 42	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026315_TC_S3A_MEDIAN.DWG
LAYOUT NAME - 745-775
PLOT DATE : 5/17/2022 9:23 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 44



STAGE 3B

(UNDER CTH U STRUCTURE)



STAGE 3B (WEEKEND)

(UNDER CTH U STRUCTURE)

SEE "TRAFFIC CONTROL - USH 51 AND RAMP ADVANCED WARNING" FOR ROAD WORK AHEAD AND END ROAD WORK SIGNING

SPEED LIMIT 65

SOUTH 51

N

720'SB'

SB USH 51

725'SB'

730'SB'

720'NB'

725'NB'

NB USH 51

730'NB'

NORTH 51

SPEED LIMIT 65

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

N

MOVE SOUTH 51 MILE 194 .2

SB RAMP FROM CTH U

735'SB'

SB USH 51

740'SB'

745'SB'

730'SB'

735'NB'

740'NB'

745'NB'

730'NB'

NB USH 51

NB RAMP TO CTH K/BUS 51

NB RAMP TO CTH U

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 3B - SB USH 51 (OUTSIDE)	SHEET 44	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026325_TC_S3B_OUTSIDE.DWG
LAYOUT NAME - 715-745

PLOT DATE : 5/17/2022 9:25 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

2

2

SB RAMP FROM CTH U

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

CTH U

N

SB RAMP FROM CTH K /BUS 51
(CLOSED)

100'
TYP

745'SB'
SB USH 51
750'SB'
755'SB'
760'SB'

745'NB'
NB USH 51
750'NB'
755'NB'
760'NB'

US

NB RAMP TO CTH K/BUS 51

NB RAMP TO CTH U

NORTH
51
MILE
194
.4
MOVE

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

MOVE
SOUTH
51
MILE
194
.6

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

SB RAMP FROM CTH K /BUS 51
(CLOSED)

N

100'
TYP

760'SB'
765'SB'
770'SB'
SB USH 51

760'NB'
765'NB'
770'NB'
NB USH 51

CTH K/BUSINESS 51

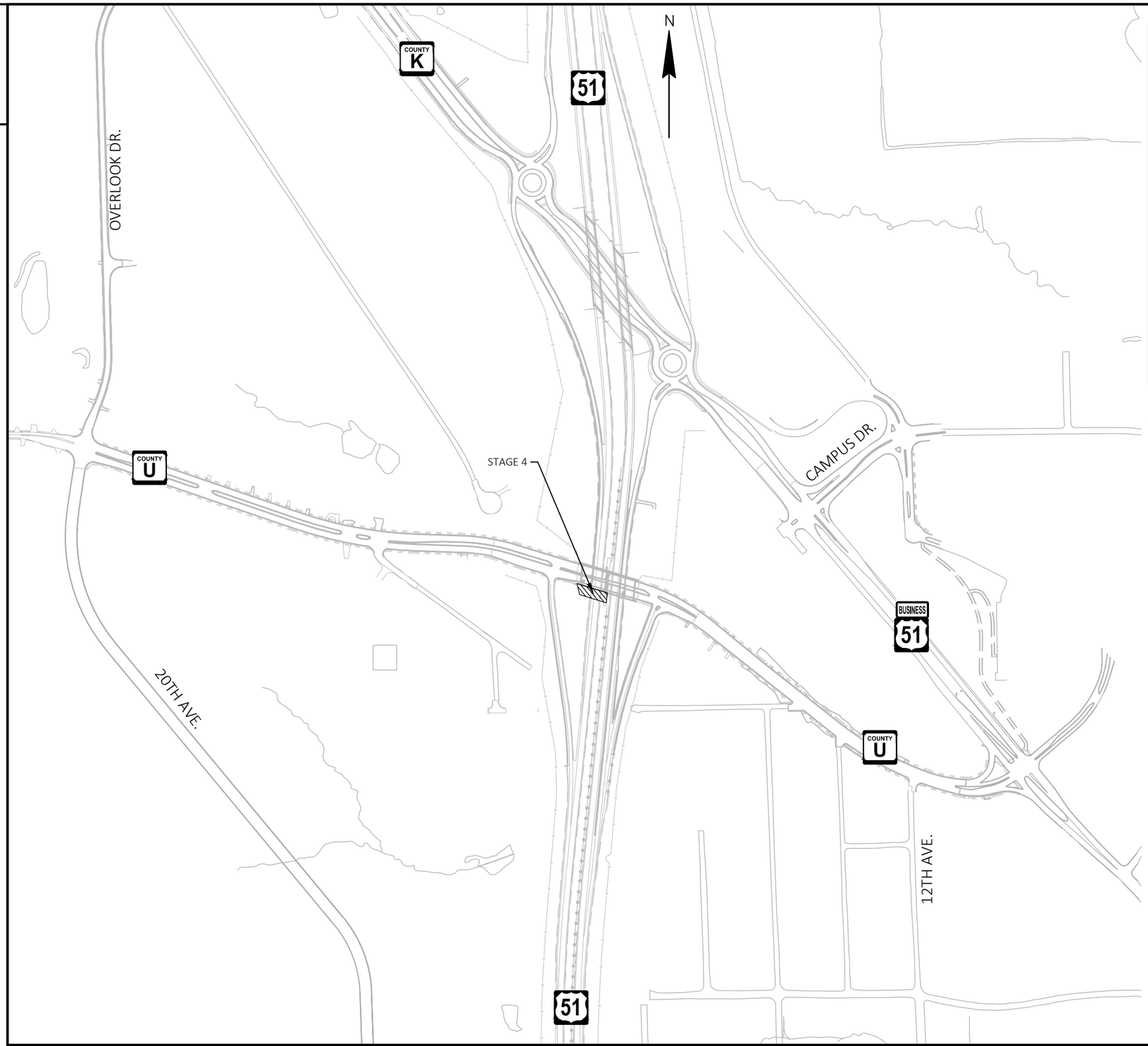
NB RAMP FROM CTH K/BUS 51

STA 775+00 - SEE SB USH 51 RIGHT LANE CLOSURE DETAIL

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 3B - SB USH 51 (OUTSIDE)	SHEET 45	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026325_TC_S3B_OUTSIDE.DWG
LAYOUT NAME - 745-775

PLOT DATE : 5/17/2022 9:26 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########



STAGE 4A

PURPOSE:
BEGIN STAINING B-37-0436

TRAFFIC HANDLING - SEE DETAILS:
NB USH 51-NO RESTRICTIONS
SB USH 51 LEFT LANE CLOSURE
CTH U - NO RESTRICTIONS

CLOSURES - SEE DETAILS:
USH 51 SB ON RAMP FROM BUSINESS 51/CTH K CLOSED

STAGE 4B

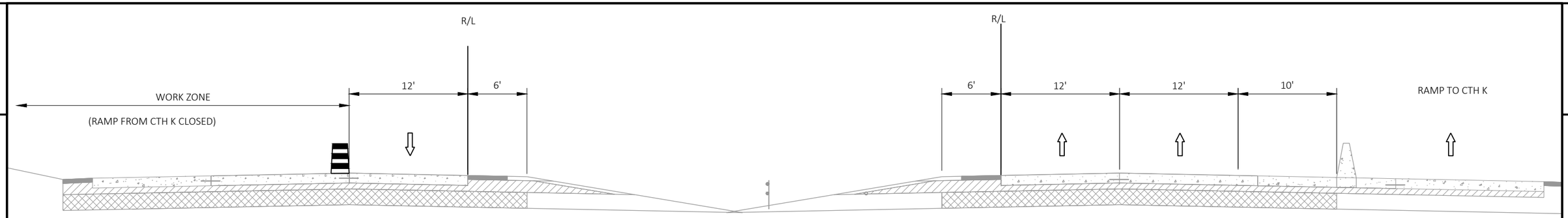
PURPOSE:
COMPLETE STAINING B-37-0436

TRAFFIC HANDLING - SEE DETAILS:
NB USH 51-NO RESTRICTIONS
SB USH 51 RIGHT LANE CLOSURE
CTH U - NO RESTRICTIONS

CLOSURES - SEE DETAILS:
USH 51 SB ON RAMP FROM BUSINESS 51/CTH K CLOSED

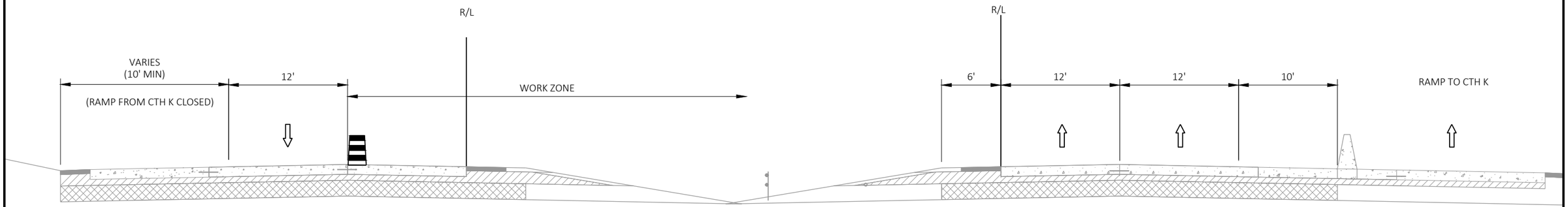
PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 4	SHEET 46	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026400_TC_S4-OVIEW.DWG
LAYOUT NAME - Plan 1 IN 1000 FT
PLOT DATE : 4/7/2022 3:29 PM
PLOT BY : ADAM OSYPOWSKI
PLOT NAME :
PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 42



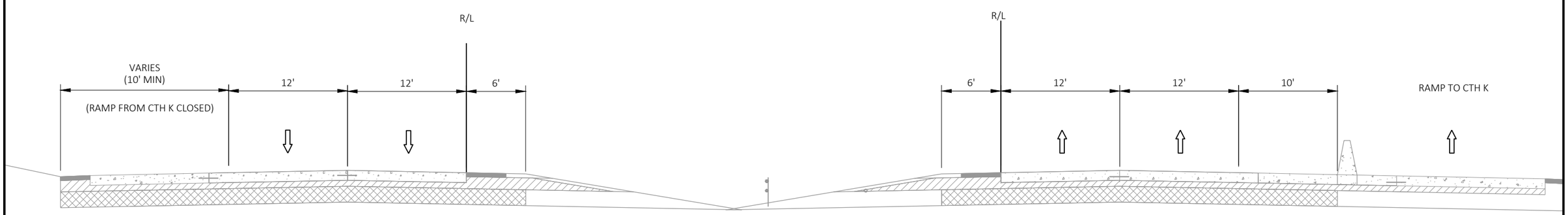
STAGE 4A

(UNDER CTH U STRUCTURE)



STAGE 4B

(UNDER CTH U STRUCTURE)



STAGE 4 (WEEKEND)

(UNDER CTH U STRUCTURE)

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 4 - USH 51 TYPICAL SECTION	SHEET 47	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\TC_-TS.DWG
LAYOUT NAME - S4
PLOT DATE : 4/27/2022 7:34 AM
PLOT BY : ADAM OSYPOWSKI
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

2

SEE "TRAFFIC CONTROL - USH 51 AND RAMP ADVANCED WARNING" FOR ROAD WORK AHEAD AND END ROAD WORK SIGNING

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

SB RAMP FROM CTH U

CTH U

N

SB RAMP FROM CTH K /BUS 51 (CLOSED)

745'SB' SB USH 51 750'SB' 755'SB' 760'SB'

100' TYP

745'NB' NB USH 51 750'NB' 755'NB' 760'NB'

50'

NB RAMP TO CTH K/BUS 51

NB RAMP TO CTH U

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

SB RAMP FROM CTH K /BUS 51 (CLOSED)

N

100' TYP

760'SB' 765'SB' 770'SB' SB USH 51

CTH K/BUSINESS 51

760'NB' 765'NB' 770'NB' NB USH 51

NB RAMP FROM CTH K/BUS 51

STA 775+00 - SEE SB USH 51 LEFT LANE CLOSURE DETAIL

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 4A - SB USH 51 (MEDIAN)	SHEET 48	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026415_TC_S4A_MEDIAN.DWG
LAYOUT NAME - 745-775

PLOT DATE : 5/17/2022 9:26 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########

2

2

SEE "TRAFFIC CONTROL - USH 51 AND RAMP ADVANCED WARNING" FOR ROAD WORK AHEAD AND END ROAD WORK SIGNING

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

SB RAMP FROM CTH U

CTH U

N

SB RAMP FROM CTH K /BUS 51 (CLOSED)

100' TYP

745'SB' SB USH 51 750'SB' 755'SB' 760'SB'

745'NB' NB USH 51 750'NB' 755'NB' 760'NB'

NB RAMP TO CTH K/BUS 51

NB RAMP TO CTH U

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

SB RAMP FROM CTH K /BUS 51 (CLOSED)

N

100' TYP

760'SB' 765'SB' 770'SB' SB USH 51

760'NB' CTH K/BUSINESS 51 765'NB' 770'NB' NB USH 51

NB RAMP FROM CTH K/BUS 51

STA 775+00 - SEE SB USH 51 RIGHT LANE CLOSURE DETAIL

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 4B - SB USH 51 (OUTSIDE)	SHEET 49	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\026425_TC_S4B_OUTSIDE.DWG
LAYOUT NAME - 745-775

PLOT DATE : 5/17/2022 9:28 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : ##########

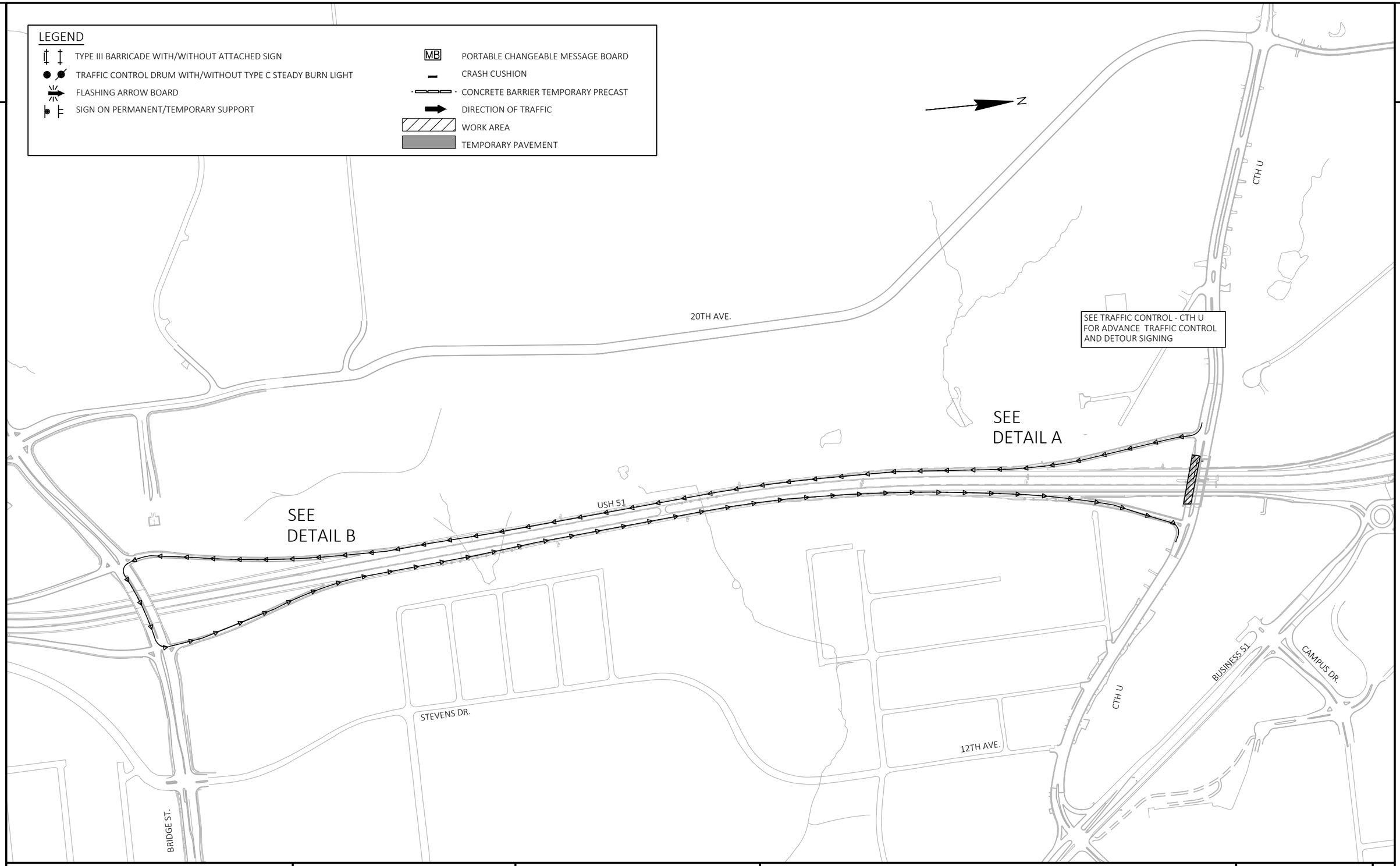
WISDOT/CADDS SHEET 44

2

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT



PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	DETOUR PLAN - STAGES 1-3 - EASTBOUND CTH U	SHEET 50	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\027010_DT_CTHUDETOUR.DWG
LAYOUT NAME - PO

PLOT DATE : 5/17/2022 9:30 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:500 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

N

SEE TRAFFIC CONTROL - CTH U FOR ADVANCE TRAFFIC CONTROL AND DETOUR SIGNING

CTH U

DETOUR M4-8 36"X18"
EAST M3-2 36"X18"
SOUTH 51 COUNTY U M1-5A 36"X36"
MO5-2R 30"X30"

DETOUR M4-8 36"X18"
EAST M3-2 36"X18"
COUNTY U M1-5A 36"X36"
MO6-2 21"X21"

SPEED LIMIT 65

EXIT 194 A-B
BUS 51 K U
Merrill Ave
EXIT ONLY
EXISTING OVERHEAD SIGN

EXIT 194 B
BUS 51 K

EXIT 194 A
U
Merrill Ave
EXISTING OVERHEAD SIGN BRIDGE

DETOUR M4-8 36"X18"
EAST M3-2 36"X18"
COUNTY U M1-5A 36"X36"
MO6-2 21"X21"
ADJACENT TO SIGN BRIDGE

END DETOUR M4-8A 24"X18"
EAST
COUNTY U

CTH U

DETAIL A

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	DETOUR PLAN - STAGES 1-3 - EASTBOUND CTH U	SHEET 51	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\027010_DT_CTHUDETOUR.DWG
LAYOUT NAME - N
PLOT DATE : 5/17/2022 9:30 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

N

20TH AVE.

DETOUR EAST COUNTY U — M4-8 24"X12" / M3-2 24"X12" / M1-5A 24"X24" / MO6-1 21"X21"

DETOUR EAST COUNTY U — M4-8 24"X12" / M3-2 24"X12" / M1-5A 24"X24" / MO5-1L 21"X21"

SOUTH 51 — DETOUR EAST COUNTY U — M4-8 24"X12" / M3-2 24"X12" / M1-5A 24"X24" / MO5-1L 21"X21"

DETOUR EAST COUNTY U — M4-8 24"X12" / M3-2 24"X12" / M1-5A 24"X24" / MO6-1 21"X21"

SOUTH 51

SOUTH 51

BRIDGE ST.

EXIT 193 Bridge St

DETOUR EAST COUNTY U — M4-8 36"X18" / M3-2 36"X18" / M1-5A 36"X36" / MO6-2 21"X21"

SPEED LIMIT 65

DETOUR EAST COUNTY U — M4-8 36"X18" / M3-2 36"X18" / M1-5A 36"X36" / MO5-2R 30"X30"

NORTH 51

DETAIL B

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	DETOUR PLAN - STAGES 1-3 - EASTBOUND CTH U	SHEET 52	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\027010_DT_CTHUDETOUR.DWG
LAYOUT NAME - N (2)

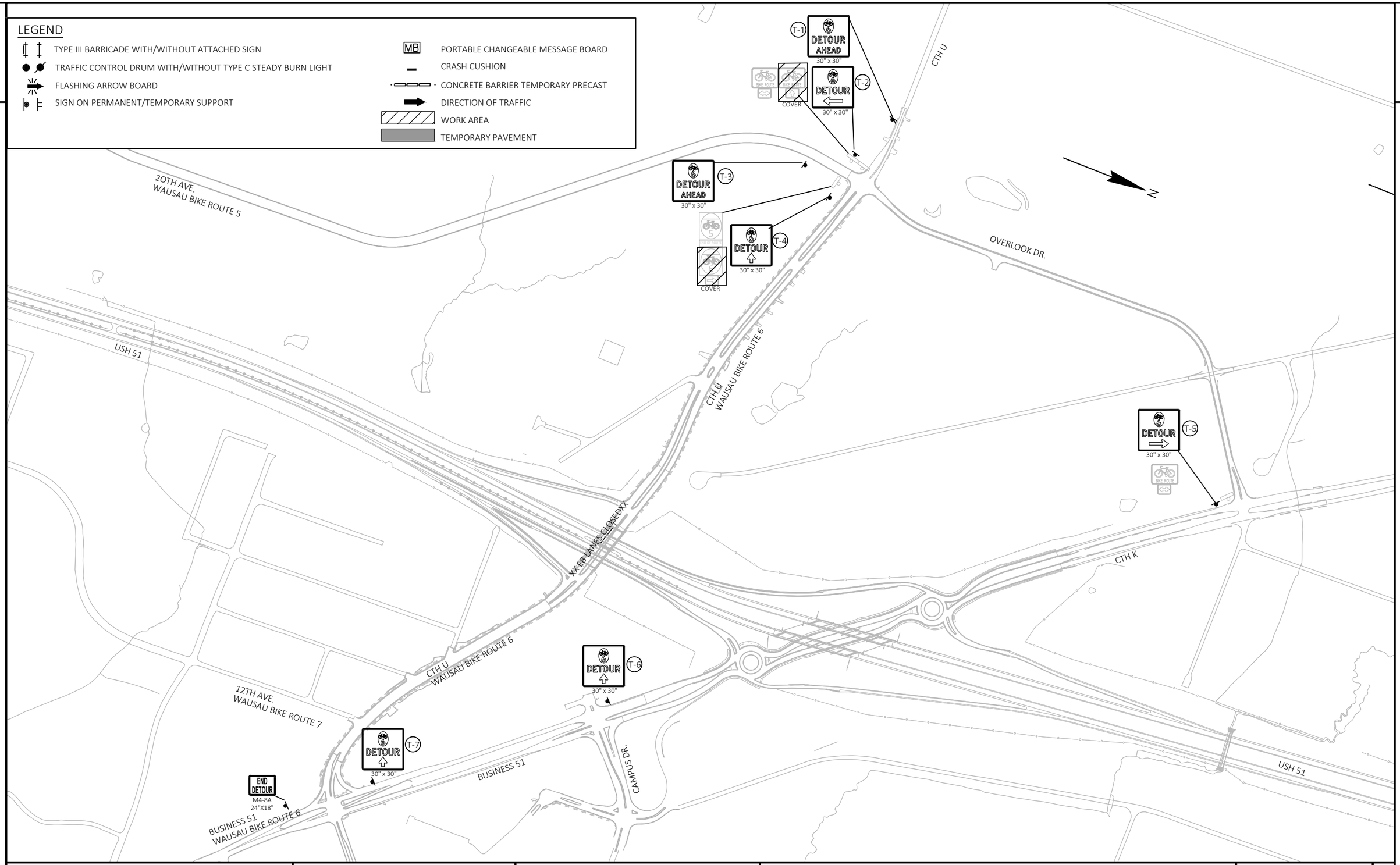
PLOT DATE : 5/17/2022 9:31 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT



PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	DETOUR PLAN - STAGES 1-3 - WAUSAU BIKE ROUTE 6	SHEET 53	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\027015_DT_BIKEDETOUR.DWG
LAYOUT NAME - PO

PLOT DATE : 5/17/2022 9:31 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:500 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

N

USH 51

CTH U

SOUTH 51 M3-3 24"X12" M1-4 24"X24"

RAMP CLOSED AHEAD W20-53A

OVERLOOK DR.

SOUTH 51

SEE DETAIL A

CTH K

XX-- RAMP CLOSED- -XX

JCT 51

CTH U

12TH AVE.

BUS 51

SEE DETAIL B

USH 51

SOUTH 51 M3-3 24"X12" M1-4 24"X24"

RAMP CLOSED AHEAD W20-53A

RANDOLPH ST.

FERNWOOD DR.

CAMPUS DR.

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	DETOUR PLAN - STAGES 1-3; STAGE 4 - BUS 51/CTH K TO SOUTHBOUND USH 51	SHEET 54	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\027020_DT_RAMPDETOUR.DWG
LAYOUT NAME - PO

PLOT DATE : 5/17/2022 9:33 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:500 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT

CLOSE CTH K/BUS 51 ON RAMP TO SOUTHBOUND US 51
USING STANDARD DETAIL
"BARRICADES AND SIGNS FOR VARIOUS CLOSURES"

EXISTING OVERHEAD SIGN BRIDGE

NORTH 51 Merrill
BUS 51 Wausau
BUS 51 Wausau

TO SOUTH 51 — MO4-5 24"X12", M3-3 24"X12", M1-4 24"X24", MO6-1 21"X21"
ADJACENT TO SIGN BRIDGE

SOUTH 51 Stevens Point
COVER

EXISTING OVERHEAD SIGN BRIDGE

NORTH BUS 51 Merrill
BUS 51 Wausau
SOUTH 51 Stevens Point
COVER
(STAGES 1-3 ONLY)

TO SOUTH 51 — MO4-5 24"X12", M3-3 24"X12", M1-4 24"X24", MO6-1 21"X21"
ADJACENT TO SIGN BRIDGE

TO SOUTH 51 — MO4-5 24"X12", M3-3 24"X12", M1-4 24"X24", MO6-2 21"X21"

NORTH BUS 51 51

XX-- RAMP CLOSED---XX

CTH K

OVERLOOK DR.

SB USH 51

NB USH 51

USH 51

TO SOUTH 51 — MO4-5 24"X12", M3-3 24"X12", M1-4 24"X24", MO6-2 21"X21"

BUS 51

SOUTH 51 NORTH K
COVER

EXISTING OVERHEAD SIGN BRIDGE

SOUTH 51 Stevens Point — K Merrill
COVER
(STAGES 1-3 ONLY)

K Merrill

N

DETAIL A

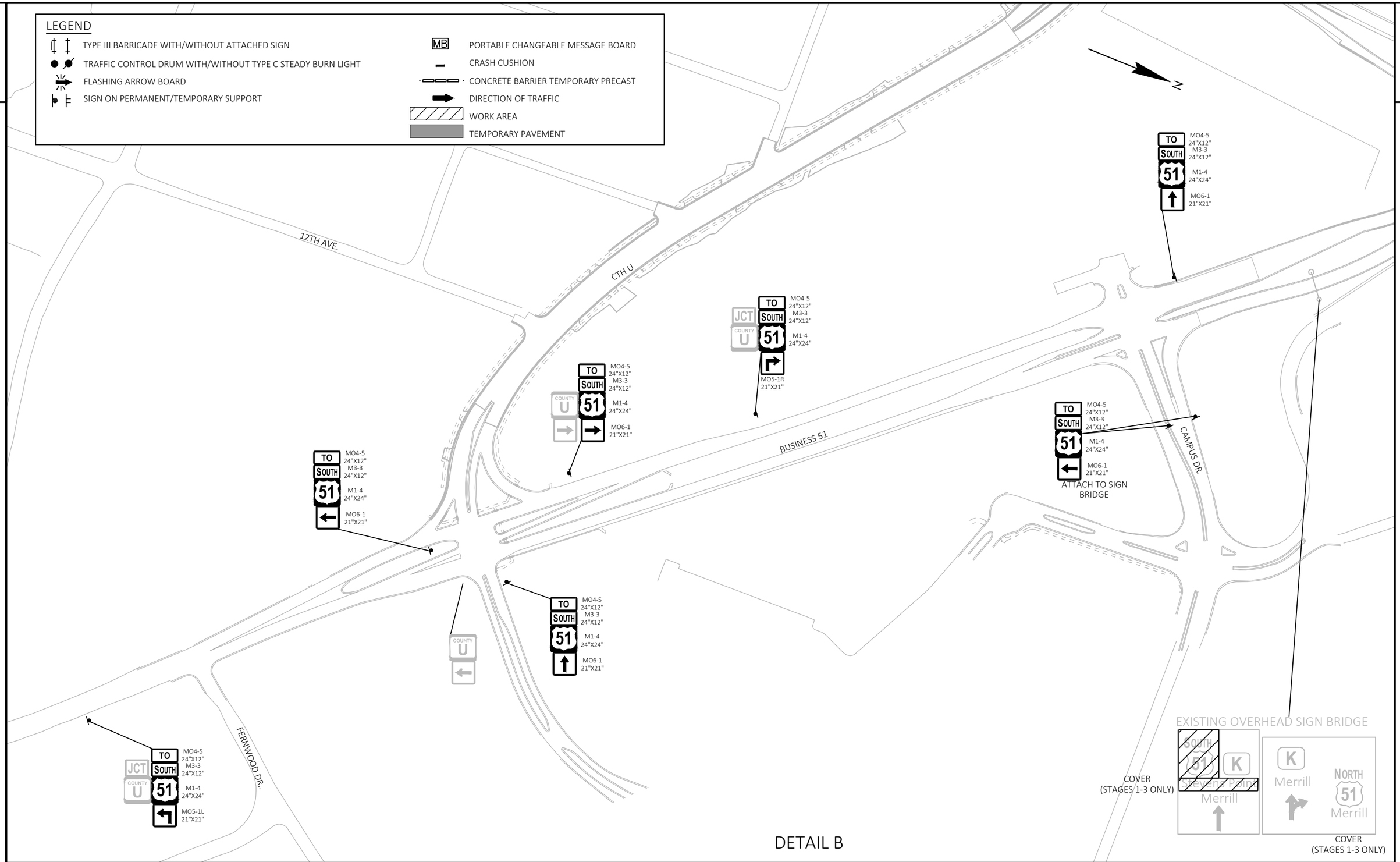
PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	DETOUR PLAN - STAGES 1-3; STAGE 4 - BUS 51/CTH K TO SOUTHBOUND USH 51	SHEET 55	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\027020_DT_RAMPDETOUR.DWG
LAYOUT NAME - PO (3)
PLOT DATE : 5/17/2022 9:34 AM
PLOT BY : ADAM OSYPOWSKI
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT/TEMPORARY SUPPORT
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA
- TEMPORARY PAVEMENT



DETAIL B

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	DETOUR PLAN - STAGES 1-3; STAGE 4 - BUS 51/CTH K TO SOUTHBOUND USH 51	SHEET 56	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\027020_DT_RAMPDETOUR.DWG
LAYOUT NAME - PO (2)
PLOT DATE : 5/17/2022 9:34 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:200 FT

6999-12-71

Line	Item	Item Description	Unit	Total	Qty
0002	203.0220	Removing Structure (structure) 01. B-37-436	EACH	1.000	1.000
0004	204.0100	Removing Concrete Pavement	SY	71.000	71.000
0006	204.0155	Removing Concrete Sidewalk	SY	20.000	20.000
0008	205.0100	Excavation Common	CY	6,339.000	6,339.000
0010	206.1000	Excavation for Structures Bridges (structure) 01. B-37-436	LS	1.000	1.000
0012	210.1500	Backfill Structure Type A	TON	65.000	65.000
0014	213.0100	Finishing Roadway (project) 01. 6999-12-71	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	731.000	731.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	6,678.000	6,678.000
0020	310.0110	Base Aggregate Open-Graded	TON	35.000	35.000
0022	312.0110	Select Crushed Material	TON	100.000	100.000
0024	415.0410	Concrete Pavement Approach Slab	SY	64.000	64.000
0026	415.6000.S	Rout and Seal	LF	3,056.000	3,056.000
0028	416.0610	Drilled Tie Bars	EACH	7.000	7.000
0030	416.0620	Drilled Dowel Bars	EACH	30.000	30.000
0032	465.0105	Asphaltic Surface	TON	305.000	305.000
0034	465.0125	Asphaltic Surface Temporary	TON	1,690.000	1,690.000
0036	465.0400	Asphaltic Shoulder Rumble Strips	LF	3,056.000	3,056.000
0038	502.0100	Concrete Masonry Bridges	CY	192.000	192.000
0040	502.3200	Protective Surface Treatment	SY	400.000	400.000
0042	503.0155	Prestressed Girder Type I 54W-Inch	LF	493.500	493.500
0044	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	36,910.000	36,910.000
0046	505.0904	Bar Couplers No. 4	EACH	39.000	39.000
0048	505.0910	Bar Couplers No. 10	EACH	57.000	57.000
0050	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	8.000	8.000
0052	509.1500	Concrete Surface Repair	SF	100.000	100.000
0054	516.0500	Rubberized Membrane Waterproofing	SY	6.000	6.000
0056	517.1010.S	Concrete Staining (structure) 01. B-37-436	SF	2,075.000	2,075.000
0058	520.2012	Culvert Pipe Temporary 12-Inch	LF	920.000	920.000
0060	531.8990	Anchor Assemblies Poles on Structures	EACH	1.000	1.000
0062	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	23.000	23.000
0064	602.0405	Concrete Sidewalk 4-Inch	SF	184.000	184.000
0066	603.8000	Concrete Barrier Temporary Precast Delivered	LF	3,770.000	3,770.000
0068	603.8125	Concrete Barrier Temporary Precast Installed	LF	3,770.000	3,770.000
0070	604.0400	Slope Paving Concrete	SY	50.000	50.000
0072	612.0106	Pipe Underdrain 6-Inch	LF	22.000	22.000
0074	614.0905	Crash Cushions Temporary	EACH	2.000	2.000
0076	618.0100	Maintenance And Repair of Haul Roads (project) 01. 6999-12-71	EACH	1.000	1.000
0078	619.1000	Mobilization	EACH	1.000	1.000
0080	624.0100	Water	MGAL	90.000	90.000
0082	625.0100	Topsoil	SY	9,014.000	9,014.000
0084	628.1504	Silt Fence	LF	25.000	25.000
0086	628.1520	Silt Fence Maintenance	LF	25.000	25.000
0088	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0090	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0092	628.2004	Erosion Mat Class I Type B	SY	8,420.000	8,420.000
0094	628.2008	Erosion Mat Urban Class I Type B	SY	6.000	6.000
0096	628.7005	Inlet Protection Type A	EACH	4.000	4.000
0098	628.7015	Inlet Protection Type C	EACH	2.000	2.000

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Line	Item	Item Description	Unit	Total	Qty
0100	628.7504	Temporary Ditch Checks	LF	60.000	60.000
0102	628.7555	Culvert Pipe Checks	EACH	5.000	5.000
0104	629.0210	Fertilizer Type B	CWT	7.100	7.100
0106	630.0130	Seeding Mixture No. 30	LB	203.000	203.000
0108	630.0500	Seed Water	MGAL	253.000	253.000
0110	638.2102	Moving Signs Type II	EACH	6.000	6.000
0112	638.4000	Moving Small Sign Supports	EACH	6.000	6.000
0114	642.5001	Field Office Type B	EACH	1.000	1.000
0116	643.0300	Traffic Control Drums	DAY	18,064.000	18,064.000
0118	643.0420	Traffic Control Barricades Type III	DAY	1,493.000	1,493.000
0120	643.0705	Traffic Control Warning Lights Type A	DAY	2,986.000	2,986.000
0122	643.0715	Traffic Control Warning Lights Type C	DAY	4,500.000	4,500.000
0124	643.0800	Traffic Control Arrow Boards	DAY	242.000	242.000
0126	643.0900	Traffic Control Signs	DAY	14,230.000	14,230.000
0128	643.0910	Traffic Control Covering Signs Type I	EACH	3.000	3.000
0130	643.0920	Traffic Control Covering Signs Type II	EACH	30.000	30.000
0132	643.1000	Traffic Control Signs Fixed Message	SF	43.750	43.750
0134	643.1050	Traffic Control Signs PCMS	DAY	70.000	70.000
0136	643.1051	Traffic Control Signs PCMS with Cellular Communications	DAY	190.000	190.000
0138	643.5000	Traffic Control	EACH	1.000	1.000
0140	644.1810	Temporary Pedestrian Barricade	LF	30.000	30.000
0142	645.0111	Geotextile Type DF Schedule A	SY	15.000	15.000
0144	646.1020	Marking Line Epoxy 4-Inch	LF	1,725.000	1,725.000
0146	646.9000	Marking Removal Line 4-Inch	LF	1,525.000	1,525.000
0148	649.0105	Temporary Marking Line Paint 4-Inch	LF	3,995.000	3,995.000
0150	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	3,040.000	3,040.000
0152	650.5000	Construction Staking Base	LF	4,326.000	4,326.000
0154	650.6000	Construction Staking Pipe Culverts	EACH	4.000	4.000
0156	650.6500	Construction Staking Structure Layout (structure) 01. B-37-346	LS	1.000	1.000
0158	650.8000	Construction Staking Resurfacing Reference	LF	150.000	150.000
0160	650.9910	Construction Staking Supplemental Control (project) 01. 6999-12-71	LS	1.000	1.000
0162	650.9920	Construction Staking Slope Stakes	LF	4,326.000	4,326.000
0164	652.0125	Conduit Rigid Metallic 2-Inch	LF	10.000	10.000
0166	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	255.000	255.000
0168	653.0222	Junction Boxes 18x12x6-Inch	EACH	1.000	1.000
0170	690.0150	Sawing Asphalt	LF	40.000	40.000
0172	690.0250	Sawing Concrete	LF	56.000	56.000
0174	715.0502	Incentive Strength Concrete Structures	DOL	1,152.000	1,152.000
0176	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0178	SPV.0060	Special 01. Remove and Reinstall Steel Diaphragms	EACH	8.000	8.000
0180	SPV.0060	Special 02. Remove and Reinstall Light Pole	EACH	1.000	1.000
0182	SPV.0060	Special 03. Removing and Resetting Railing and Chain Link Fencing B-37-436	EACH	1.000	1.000
0184	SPV.0060	Special 04. Remove and Reinstall Electrical Wire Lighting	EACH	1.000	1.000
0186	SPV.0090	Special 01. Salvage and Reinstall Thrie Beam and Bullnose Terminal	LF	470.000	470.000
0188	SPV.0090	Special 02. Salvage and Reinstall High Tension Cable Barrier	LF	3,332.000	3,332.000
0190	SPV.0165	Special 01. Fiber Wrap Reinforcing Non-Structural	SF	100.000	100.000

2

REMOVING CONCRETE PAVEMENT

LOCATION	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0155 REMOVING CONCRETE SIDEWALK SY	690.0250 SAWING CONCRETE LF
PROJECT 6999-12-71 CATEGORY 0010			
CTH U APPROACH	71	20	56
	---		---
PROJECT 6999-12-71 CAT 0010 TOTALS	**71**	**20**	56

EARTHWORK SUMMARY

DIVISION	FROM/TO STATION	205.0100 COMMON EXCAVATION (1) CUT (2)	205.0100 COMMON EXCAVATION (1) EBS EXCAVATION (3)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR 1.25	MASS ORDINATE +/- (14)	WASTE
DIVISION 1								
X-OVER	335+82.29/363+16.72	1,821	0	1,821	1,284	1,605	216	216
DIVISION 1 SUBTOTAL		1,821	0	1,821	1,284	1,605	216	216
DIVISION 2								
FINAL MEDIAN	735+77.59/763+21.20	4,518	0	4,518	304	380	4,138	4,138
DIVISION 2 SUBTOTAL		4,518	0	4,518	304	380	4,138	4,138
GRAND TOTAL		6,339	0	6,339	1,588	1,985	4,354	4,354
	TOTAL COMMON EXC	6,339						

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(13) EXPANDED FILL FACTOR = 1.25
(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

BASE AGGREGATE DENSE ITEMS

STA	-	STA	LOC	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	310.0110 OPEN GRADED TON	312.0110 SELECT CRUSHED MATERIAL TON	612.0106 PIPE UNDERDRAIN 6-INCH LF	645.0111 GEOTEXTILE TYPE DF SCHEDULE A SY
PROJECT 6999-12-71 CATEGORY 0010									
342'X'+23	-	358'X'+06	USH 51 TEMP	---	4315	---	---	---	---
735'SB'+86	-	747'SB'+85	USH 51 SB SHOULDER	285	923	---	---	---	---
744'NB'+50	-	756'NB'+25	USH 51 NB SHOULDER	284	904	---	---	---	---
756'SB'+35	-	763'SB'+17	USH 51 SB SHOULDER	162	531	---	---	---	---
			CTH U APPROACH SLAB	---	---	35	---	22	15
			CTH U SIDEWALK	---	5	---	---	---	---
UNDISTRIBUTED			*	---	---	---	100	---	---
PROJECT 6999-12-71 TOTALS				**731**	**6678**	**35**	**100**	**22**	**15**

* UNDISTRIBUTED QUANTITY OF SELECT CRUSHED MATERIAL IS FOR REPLACING AREAS DAMAGED DURING CONSTRUCTION

WATER

LOCATION	624.0100 MGAL
PROJECT 6999-12-71 CATEGORY 0010	
BASE COMPACTION	74
DUST CONTROL	16
PROJECT 6999-12-71 TOTALS	**90**

CONCRETE PAVEMENT

STATION	LANE LOCATION	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH
PROJECT 6999-12-71 CATEGORY 0010				
	CTH U APPROACH	64	7	30
PROJECT 6999-12-71 CAT 0010 TOTALS		**64**	**7**	**30**

CULVERT PIPE TEMPORARY 12-INCH

STA	-	STA	LOC	520.2012 CULVERT PIPE TEMPORARY 12-INCH FT	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	INLET ELEVATION	DISCHARGE ELEVATION
PROJECT 6999-12-71 CATEGORY 0010							
344'X'+01, 28.5' RT	-	346'X'+50, 12.5' LT	TEMP X-OVER	254	1	1242.53	1243.05
344'X'+01, 28.5' RT	-	346'X'+50, 12.5' LT	TEMP X-OVER	254	1	1242.53	1243.05
354'X'+00, 13.7' LT	-	356'X'+00, 32.4' RT	TEMP X-OVER	206	1	1247.00	1251.00
354'X'+00, 13.7' LT	-	356'X'+00, 32.4' RT	TEMP X-OVER	206	1	1247.00	1251.00
PROJECT 6999-12-71 TOTALS				**920**	**4**		

CONCRETE CURB AND GUTTER AND SIDEWALK

LOC	601.0409 CONCRETE CURB AND GUTTER 30-INCH TYPE A LF	602.0405 CONCRETE SIDEWALK 4-INCH SF
PROJECT 6999-12-71 CATEGORY 0010		
CTH U APPROACH	23	184
PROJECT 6999-12-71 TOTALS	23	184

ASPHATIC SURFACE ITEMS

STA	-	STA	LOC	465.0105 ASPHALTIC SURFACE TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	415.6000.S ROUT AND SEAL LF	465.0400 ASPHALTIC SHOULDER RUMBLE STRIPS LF
PROJECT 6999-12-71 CATEGORY 0010							
342'X'+23	-	358'X'+06	USH 51 TEMP	---	1690	---	---
735'SB'+86	-	747'SB'+85	USH 51 SB SHOULDER	120	---	1199	1199
744'NB'+50	-	756'NB'+25	USH 51 NB SHOULDER	117	---	1175	1175
756'SB'+35	-	763'SB'+17	USH 51 SB SHOULDER	68	---	682	682
PROJECT 6999-12-71 TOTALS				**305**	**1690**	**3056**	**3056**

2

2

RESTORATION ITEMS

STA	-	STA	LOC	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0500 SEED WATER MGAL
PROJECT 6999-12-71 CATEGORY 0010							
342'X'+23	-	358'X'+06	USH 51 TEMP	2556	1.6	46.0	57
735'NB'+78	-	763'NB'+21	USH 51	6452	4.1	116.1	145
			CTH U	6	---	.1	.1
UNDISTRUBUTED				---	1.4	41	51
PROJECT 6999-12-71 TOTALS				**9014**	**7.1**	**203**	**253**

MOBILIZATIONS EROSION CONTROL AND EMERGENCY EROSION CONTROL

PROJECT	628.1905 EACH	628.1910 EMERGENCY EACH
PROJECT 6999-12-71 CATEGORY 0010		
6999-12-71	2	2
PROJECT 6999-12-71 TOTALS	**2**	**2**

EROSION CONTROL ITEMS

STA	-	STA	LOC	628.1504 SILT FENCE FT	628.1520 SILT FENCE MAINT FT	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.2004 EROSION MAT CLASS I TYPE B SY	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH
PROJECT 6999-12-71 CATEGORY 0010											
340'X'+20	-	358'X'+50	LT/RT	---	---	---	1420	---	---	---	---
735'NB'+78	-	763'NB'+21	LT	---	---	---	6452	---	---	50	---
		740'NB'+14	LT	---	---	---	---	2	---	---	---
		753'NB'+00	LT	---	---	---	---	2	---	---	---
		346'X'+50	LT	---	---	---	---	---	---	---	1
		346'X'+50	LT	---	---	---	---	---	---	---	1
		356'X'+00	LT	---	---	---	---	---	---	---	1
		356'X'+00	LT	---	---	---	---	---	---	---	1
			CTH U	---	---	6	---	---	2	---	---
UNDISTRUBUTED				25	25	---	1968	---	---	10	1
PROJECT 6999-12-71 TOTALS				**25**	**25**	**6**	**8420**	**4**	**2**	**60**	**5**

2

TYPE II SIGNING

STAGE		MESSAGE	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	REMARKS
PROJECT 6999-12-71 CATEGORY 0010					
1B	SB US 51	MILE MARKER 194.2	1	1	
1B	NB US 51	MILE MARKER 194.4	1	1	
1B	SB US 51	MILE MARKER 194.6	1	1	
3B	SB US 51	MILE MARKER 194.2	1	1	RESTORE TO ORIGINAL LOCATION
3B	NB US 51	MILE MARKER 194.4	1	1	RESTORE TO ORIGINAL LOCATION
3B	SB US 51	MILE MARKER 194.6	1	1	RESTORE TO ORIGINAL LOCATION
PROJECT 6999-12-71 CAT 0010 TOTALS			**6**	**6**	

CRASH CUSHION TEMPORARY

INSTALL IN STAGE	REMAINS FOR STAGES	LOCATION	614.0905 CRASH CUSHIONS TEMPORARY EACH	BACK WIDTH FT	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
PROJECT 6999-12-71 CATEGORY 0010									
1B	2,3	754+85 'SB'	1	2	OM-3L	TL-3	UNIDIRECTIONAL	L	TEMP BARRIER ON MEDIAN SHOULDER
2	N/A	354+83 'X'	1	2	OM-3R	TL-3	UNIDIRECTIONAL	R	TEMP BARRIER ON CROSSOVER
PROJECT 6999-12-71 CAT 0010 TOTALS			**2**						

CONCRETE BARRIER TEMPORARY

STAGE	LOCATION	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF
PROJECT 6999-12-71 CATEGORY 0010			
CATEGOREY 0010			
1A	STA 749+00 -STA 755+00 'SB' OUTSIDE	500	500
1B	STA 749+00 -STA 755+00 'SB' MEDIAN	585	585
2	STA- 745+00 - STA 755+50 'NB' INSIDE (WEEK 1)	1050	1050
2	STA- 745+00 - STA 755+50 'NB' INSIDE (WEEK 2)	1050	1050
2	STA 349+00 -STA 355+85 'X'	585	585
PROJECT 6999-12-71 CAT 0010 TOTALS		3,770	3,770

2

TRAFFIC CONTROL

				643.0300		643.0420		643.0705		643.0715		643.0800		643.0900		643.0910			643.0920			644.1810
		ESTIMATED SERVICE PERIOD		TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		TRAFFIC CONTROL WARNING LIGHTS TYPE C		TRAFFIC CONTROL ARROW BOARDS		TRAFFIC CONTROL SIGNS		COVERING SIGNS TYPE I			COVERING SIGNS TYPE II			TEMPORARY PEDESTRIAN BARRICADE
																TYPE I			TYPE II			
STAGE	LOCATION	CYCLES	DAYS PER CYCLE	NO	DAYS	NO	DAYS	NO	DAYS	NO	DAYS	NO	DAYS	NO	DAYS	CYCLES	#	EACH	CYCLES	#	EACH	LF
PROJECT 6999-12-71 CATEGORY 0010																						
1-3	ADV WARNING USH 51/RAMPS	1	75	---	---	---	---	---	---	---	---	---	---	17	1,275	---	---	---	---	---	---	---
1A	STAGE 1A - SOUTHBOUND	1	5	102	510	5	25	10	50	24	120	2	10	15	75	1	---	---	1	1	1	---
1B	STAGE 1B - NORTHBOUND	3	5	134	2,010	6	90	12	180	36	540	2	30	16	240	3	---	---	3	2	6	---
1B	STAGE 1B - SOUTHBOUND	3	5	140	2,100	6	90	12	180	32	480	2	30	16	240	3	---	---	3	1	3	---
2	STAGE 2 - NORTHBOUND	2	5	126	1,260	6	60	12	120	36	360	2	20	12	120	2	---	---	2	---	---	---
2	STAGE 2 - SOUTHBOUND	2	5	207	2,070	10	100	20	200	64	640	2	20	20	200	2	---	---	2	---	---	---
2	STAGE 2 - WEEKEND	3	2	50	300	6	36	12	72	---	---	---	---	5	30	3	---	---	3	---	---	---
3A	STAGE 3A-NORTHBOUND	3	5	135	2,025	6	90	12	180	36	540	4	60	16	240	3	---	---	3	2	6	---
3A	STAGE 3A-SOUTHBOUND	3	5	140	2,100	6	90	12	180	32	480	2	30	16	240	3	---	---	3	1	3	---
3B	STAGE 2B-SOUTHBOUND	1	5	102	510	5	25	10	50	24	120	2	10	14	70	1	---	---	1	1	1	---
1-3	CTH U	1	75	49	3,675	7	525	14	1,050	12	900	---	---	34	2,550	1	---	---	1	---	---	30
1-3	CTH K SB RAMP TO SB US 51 DETOUR	1	75	---	---	3	225	6	450	---	---	---	---	55	4,125	1	3	3	1	2	2	---
1-3	CTH U DETOUR	1	75	---	---	---	---	---	---	---	---	---	---	45	3,375	1	---	---	1	---	---	---
1-3	BIKE ROUTE 6 DETOUR	1	75	---	---	---	---	---	---	---	---	---	---	1	75	1	---	---	1	4	4	---
																						---
4	ADV WARNING SB USH 51/RAMPS	1	19	---	---	---	---	---	---	---	---	---	---	6	114							---
4A	STAGE 4A - SOUTHBOUND	2	4	102	816	5	40	10	80	24	192	2	16	14	112	---	---	---	1	1	1	---
4B	STAGE 4B - SOUTHBOUND	2	4	86	688	5	40	10	80	16	128	2	16	13	104	---	---	---	1	1	1	---
4	CTH K SB RAMP TO SB US 51 DETOUR	1	19	---	---	3	57	6	114	---	---	---	---	55	1,045	---	---	---	1	2	2	---
PROJECT 6999-12-71 CAT 0010 TOTALS				18,064		1,493		2,986		4,500		242		14,230		3			30			30

SIGNS FIXED MESSAGE

NO.	INSTALL IN	TO REMAIN FOR STAGE	LOCATION	MESSAGE	SIZE IN X IN	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF
PROJECT 6999-12-71 CATEGORY 0010						
T-1	STAGE 1	2,3	EB CTH U	BIKE RTE 6 DETOUR AHEAD	30 X 30	6.25
T-2	STAGE 1	2,3	EB CTH U/ 20TH AVE	BIKE RTE 6 DETOUR LEFT ARROW	30 X 30	6.25
T-3	STAGE 1	2,3	NB 20TH AVE	BIKE RTE 6 DETOUR AHEAD	30 X 30	6.25
T-4	STAGE 1	2,3	NB 20TH AVE / CTH U	BIKE RTE 6 DETOUR UP ARROW	30 X 30	6.25
T-5	STAGE 1	2,3	OVERLOOK/ CTH K	BIKE RTE 6 DETOUR RIGHT ARROW	30 X 30	6.25
T-6	STAGE 1	2,3	CTH K/ CAMPUS	BIKE RTE 6 DETOUR UP ARROW	30 X 30	6.25
T-7	STAGE 1	2,3	CTH K/ CTH U	BIKE RTE 6 DETOUR UP ARROW	30 X 30	6.25
PROJECT 6999-12-71 CAT 0010 TOTALS						43.75

TRAFFIC CONTROL PCMS

SITE	DAYS	DAYS
	643.1050 TRAFFIC CONTROL SIGNS PCMS	643.1051 TRAFFIC CONTROL SIGNS PCMS WITH CELLULAR COMMUNICATIONS
PROJECT 6999-12-71 CATEGORY 0010		
N1	---	82
S1	---	108
R1	7	---
U1	7	---
C1	28	---
C2	28	---
PROJECT 6999-12-71 CAT 0010 TOTALS	70	190

TEMPORARY AND PERMANENT PAVEMENT MARKING

LOCATION	646.1020 MARKING LINE EPOXY 4-INCH (WHITE) LF	646.1020 MARKING LINE EPOXY 4-INCH (YELLOW) LF	646.9000 MARKING REMOVAL LINE 4-INCH LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH (WHITE) LF	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW) LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW) LF
PROJECT 6999-12-71 CATEGORY 0010							
STAGE 2 - 'X' LINE WEEK 1	---	---	1,525	1,570	2,425	1,045	325
STAGE 2 - 'X' LINE WEEK 2	---	---	---	---	---	1,045	325
STAGES 1-3 CTH U	---	---	---	---	---	---	300
USH 51 NORTHBOUND - STAGE 3	---	480	---	---	---	---	---
USH 51 SOUTHBOUND - STAGE 3	---	1,045	---	---	---	---	---
CTH U	200	---	---	---	---	---	---
SUBTOTALS	200	1,525		1,570	2,425	2,090	950
PROJECT 6999-12-71 CAT 0010 TOTALS	**1,725**		**1,525**	**3,995**		**3,040**	

2

CONSTRUCTION STAKING

STA	-	STA	LOCATION	650.5000 CONSTRUCTION STAKING BASE LF	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
PROJECT 6999-12-71 CATEGORY 0010						
PROJECT				---	---	---
342'X'+23	-	358'X'+06	USH 51 TEMP	1,583	---	1,583
735'NB'+78	-	763'NB'+21	USH 51	2,743	---	2,743
			CTH U	---	150	---
PROJECT 6999-12-71 CAT 0010 TOTALS				**4,326**	**150**	**4,326**

SALVAGE AND REINSTAL STEEL THRIE BEAM AND BULLNOSE TERMINAL

STA	-	STA	LOC	SPV.0090.01 LF
PROJECT 6999-12-71 CATEGORY 0010				
750'NB'+44	-	752'NB'+73	LT	470
PROJECT 6999-12-71 TOTAL				**470**

SALVAGE AND REINSTALL HIGH TENSION CABLE BARRIER

STA	-	STA	LOC	SPV.0090.02 LF
PROJECT 6999-12-71 CATEGORY 0010				
721'NB'+62	-	750'NB'+40	LT	2882
752'NB'+50	-	757'NB'+00	LT	450
PROJECT 6999-12-71 TOTAL				**3332**

LIGHTING

STA	-	STA	LOCATION	SPV.0060.04 REMOVE AND REINSTALL ELECTRICAL WIRE LIGHTING EACH
PROJECT 6999-12-71 CATEGORY 0010				
			CTH U	1
PROJECT 6999-12-71 CAT 0010 TOTALS				**1**

SAWING ASPHALT

STA	LOC	690.0150 LF
PROJECT 6999-12-71 CATEGORY 0010		
335'X'+82	USH 51 SB SHOULDER	4
743'SB'+79	USH 51 SB SHOULDER	4
747'SB'+85	USH 51 SB SHOULDER	4
744'NB'+50	USH 51 NB SHOULDER	4
746'NB'+41	USH 51 NB SHOULDER	4
754'NB'+23	USH 51 NB SHOULDER	4
756'NB'+25	USH 51 NB SHOULDER	4
756'SB'+35	USH 51 SB SHOULDER	4
756'SB'+35	USH 51 SB SHOULDER	4
363'X'+17	USH 51 SB SHOULDER	4
PROJECT 6999-12-71 TOTAL		**40**

5

WB CTH U

EB CTH U

BEGIN CONSTRUCTION
STA 48+46.24 'U'
N=211743.001
E=274196.928
MATCH EXISTING

SAW CUT

APPROACH SLAB

SAW CUT (1' BEHIND EXISTING JOINT)

EXISTING PULL BOX TO REMAIN

BENCHMARK IN PARAPET
ELEVATION 1275.03'

REMOVE AND REINSTALL
ELECTRICAL WIRE LIGHTING

SB RAMP FROM CTH K/BUS 51

SB USH 51

NB USH 51

END CONSTRUCTION
STA 49+90.15 'U'
MATCH EXISTING
SEE BRIDGE PLAN

PC: 51+82.22
N=211645.282
E=274518.385

46'U' 47'U' 48'U' 49'U' S73°05'29"E 50'U' 51'U' 52'U

B-37-436

SB RAMP FROM CTH U

750'SB'

750'NB'

NB RAMP TO CTH K/BUS 51

N

5

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	PLAN- CTH U	SHEET 66	E

FILE NAME : S:\DESIGN\DESIGN PROJECTS\NC REGION PROJECTS\WOR-6999-12-01 (USH 51) - AYRES\C3D\SHEETSPLAN\050101_PP_51U.DWG
LAYOUT NAME - Plan 1 IN 40 FT

PLOT DATE : 4/14/2022 8:05 AM PLOT BY : ADAM OSYPOWSKI PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

PI STA = 333+02.03 'X'
Y = 209855.634
X = 274059.516
DELTA = 14°10'12" RT
D = 0°42'37"
T = 1002.53'
L = 1994.84'
R = 8066.00'
PC STA = 322+99.50 'X'
Y = 208856.584
X = 274143.014
PT STA = 342+94.33 'X'
Y = 210844.726
X = 274223.127
DB = N04°46'39"W
DA = N09°23'33"E

CONSTRUCTION LIMITS
STA 335'X'+82.29
MATCH EXISTING
SAWCUT REQ'D

PT: 342+94.33 'X'

STA 743'SB'+79
SAWCUT REQ'D

SLOPE INTERCEPT

PC: 347+73.12 'X'

334'X'
734'SB'
336'X'
736'SB'
338'X'
738'SB'
340'X'
740'SB'
USH 51 SB
742'SB'
744'SB'
746'SB'
748'SB'
346'X'
348'X'
748'NB'
746'NB'
744'NB'
742'NB'
740'NB'
738'NB'
736'NB'
734'NB'
USH 51 NB

SLOPE INTERCEPT

STA 746'NB'+41
SAWCUT REQ'D

STA 721'NB'+62 - STA 750'NB'+40
SALVAGE AND REINSTALL HIGH
TENSION CABLE BARRIER

5

5

USH 51 X-OVER SUPERELEVATION TABLE

Station	Description	Rt Lane
335+82.29	Begin Construction	-4.00%
337+44.86	End Full Super	-4.00%
337+67.50	Reverse Crown	-4.00%
344+64.34	End Normal Crown	-2.00%
345+24.34	Level Crown	0.00%
345+84.34	Reverse Crown	2.00%
346+44.34	Super Trans	4.00%
354+46.50	Super Trans	4.00%
355+99.50	Begin Full Super	5.40%
360+35.70	End Full Super	5.40%
361+88.70	Reverse Crown	2.00%
362+78.70	Level Crown	0.00%
363+68.70	Begin Normal Crown	-2.00%

STA 342+23.07
EL 1245.52

VPC STA 344+94.00
VPC EL 1245.96

VPI STA 345+33.00
VPI EL 1246.02

VPT STA 345+72.00
VPT EL 1245.83

VCL = 126.00
K = 116.67

LP STA 346+30.33
LP EL 1245.68

STA 347+50.00
EL 1246.18

STA 348+00.00
EL 1246.47

STA 348+50.00
EL 1246.73

STA 349+00.00
EL 1246.96

PROPOSED PROFILE

EXISTING PROFILE

0.16%
-0.50%
-0.50%
0.58%
0.58%
0.52%
0.46%

HP STA 345+13.14
HP EL 1245.98

VPC STA 345+72.00
VPC EL 1245.83

VCL = 78.00
K = 117.72

VPI STA 346+35.00
VPI EL 1245.51

VPT STA 346+98.00
VPT EL 1245.88

NOTE: POINT PROFILE BASED ON EXISTING EDGE OF NB PAVEMENT.

STA 345'X'+74
2-12" CULVERT PIPE
TEMPORARY

1260 1255 1250 1245 1240 1235 1230 1225

1247.60	1247.27	1246.96	1246.68	1246.43	1246.21	1246.02	1245.84	1245.67	1245.56	1245.48	1245.42	1245.38	1245.37	1245.39	1245.42	1245.48	1245.54	1245.56	1245.57	1245.64	1245.37	1245.73	1245.00	1245.81	1244.62	1245.89	1244.24	1245.97	1243.87	1245.92	1243.49	1245.72	1243.11	1245.70	1243.63	1245.89	1244.31	1246.18	1244.98	1246.47	1245.57	1246.73	1246.07	1246.96

334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	PLAN AND PROFILE: TEMPORARY CROSSOVER ('X' LINE)	SHEET 67	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 050101-pp
PLOT DATE : 4/28/2022 8:26 AM
PLOT BY : RESHESKE, CARRIE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

PI STA = 353+91.77 'X'
Y = 211927.446
X = 274402.225
DELTA = 15°03'38" LT
D = 1°13'27"
T = 618.65'
L = 1230.17'
R = 4680.00'
PC STA = 347+73.12 'X'
Y = 211317.089
X = 274301.263
PT STA = 360+03.29 'X'
Y = 212543.072
X = 274341.124
DB = N09°23'33"E
DA = N05°40'05"W

PI STA = 364+08.94 'X'
Y = 212946.745
X = 274301.059

N

CTH U

SLOPE INTERCEPT

STA 756'SB'+35
SAWCUT REQ'D

STA 754'NB'+23
SAWCUT REQ'D

USH 51 SB

USH 51 NB

SLOPE INTERCEPT

CONSTRUCTION LIMITS
STA 363'X'+16.72
MATCH EXISTING
SAWCUT REQ'D

CTH K

750'SB' 752'SB' 754'SB' 756'SB' 358'X' 360'X' 362'X' 364'X'
350'X' 352'X' 354'X' 356'X'
750'NB' 752'NB' 754'NB' 756'NB' 758'NB' 760'NB' 762'NB' 764'NB'

N5°40'05"W

STA 750'NB'+44 - STA 752'NB'+73
SALVAGE AND REINSTALL STEEL THRIE BEAM AND BULL NOSE TERMINAL

STA 721'NB'+62 - STA 750'NB'+40
STA 752'NB'+50 - STA 757'NB'+00
SALVAGE AND REINSTALL HIGH TENSION CABLE BARRIER

NOTE: POINT PROFILE BASED ON EXISTING EDGE OF NB PAVEMENT.

STA 349+00.00 EL 1246.96
STA 349+50.00 EL 1247.18
STA 350+00.00 EL 1247.37
STA 350+50.00 EL 1247.55
STA 351+00.00 EL 1247.70
STA 351+50.00 EL 1247.85
STA 352+00.00 EL 1248.07
STA 352+50.00 EL 1248.35
STA 353+00.00 EL 1248.68
STA 353+50.00 EL 1249.08
STA 354+00.00 EL 1249.54
VCL = 224.00
K = 116.67
VPC STA 356+24.00 VPC EL 1254.15
VPI STA 356+87.00 VPI EL 1256.06
VPT STA 357+50.00 VPT EL 1257.28
STA 358+00.00 EL 1258.37
PT: 360+03.29 'X'
EP: 364+08.94 'X'

0.44% 0.38% 0.36% 0.30% 0.30% 0.44% 0.56% 0.67% 0.79% 0.92% 1.10% 3.02% 2.16% 2.31%

PROPOSED PROFILE

EXISTING PROFILE

STA 354'X'+64
2-12" CULVERT PIPE
TEMPORARY

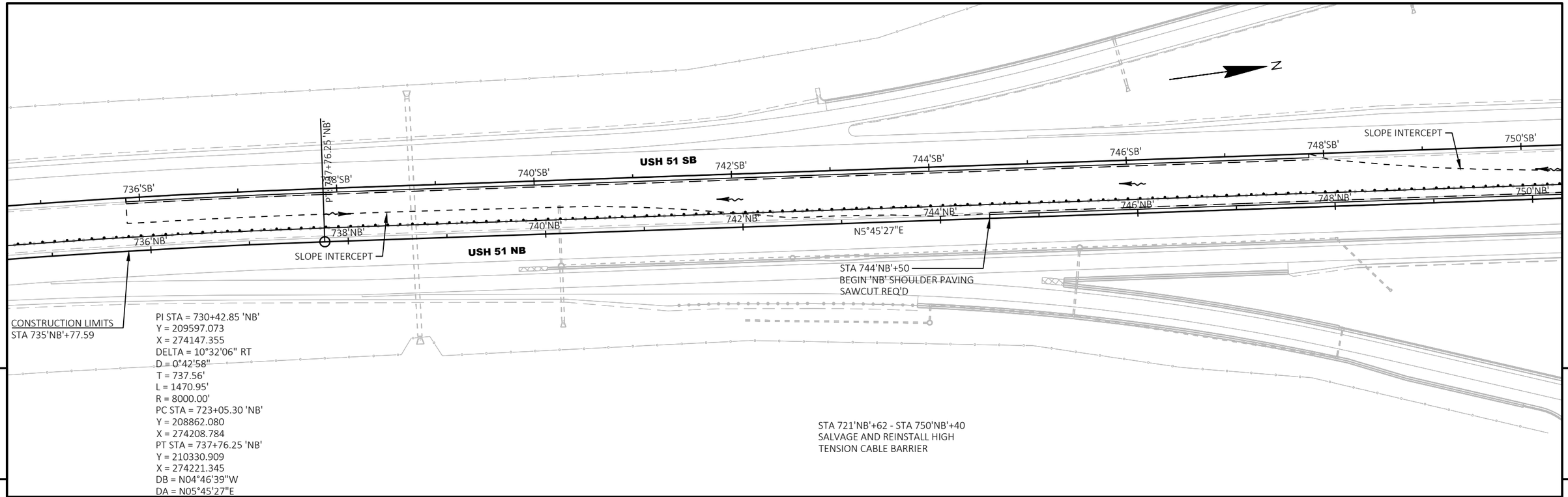
VPC STA 354+00.00 VPC EL 1249.54
VPI STA 355+12.00 VPI EL 1250.77
VPT STA 356+24.00 VPT EL 1254.15
VCL = 126.00
K = 117.67
STA 358+05.53 EL 1258.49

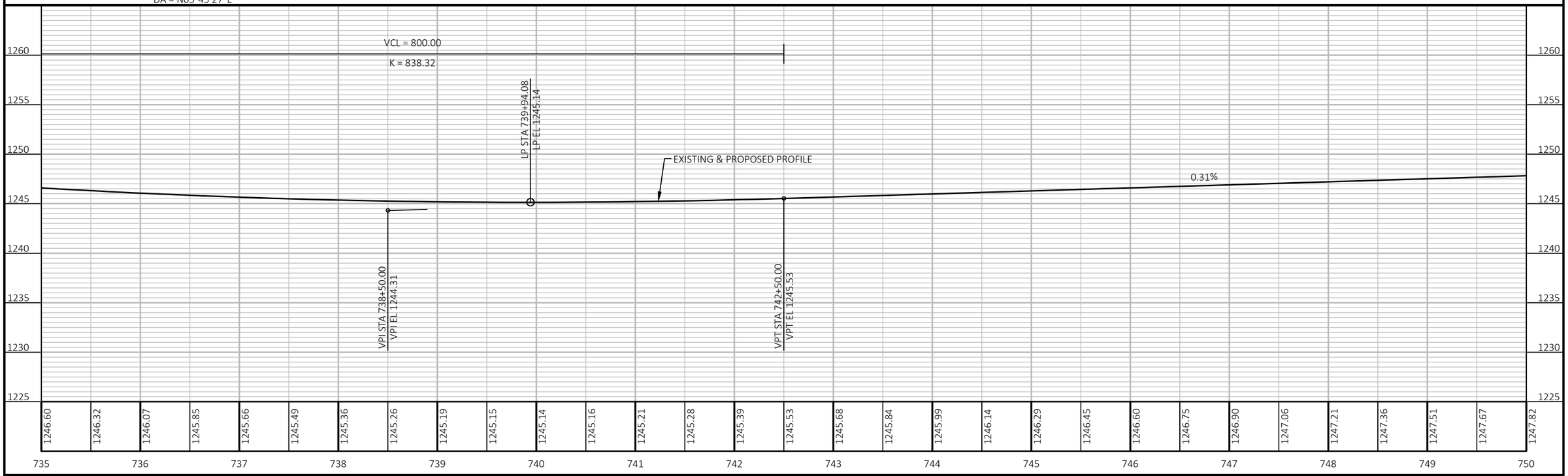
1270 1265 1260 1255 1250 1245 1240 1235

1246.07 1246.96 1246.48 1247.18 1246.80 1247.37 1247.03 1247.55 1247.18 1247.70 1247.26 1247.85 1247.34 1248.07 1247.40 1248.35 1247.46 1248.68 1247.50 1249.08 1247.54 1249.54 1247.65 1250.20 1249.20 1251.07 1250.89 1252.15 1252.62 1253.45 1254.32 1254.91 1256.05 1256.20 1257.29 1257.28 1258.37 1258.37 1259.54 1260.82 1262.16 1263.46 1264.72 1266.02 1267.26 1268.39 1269.43 1270.37 1271.20

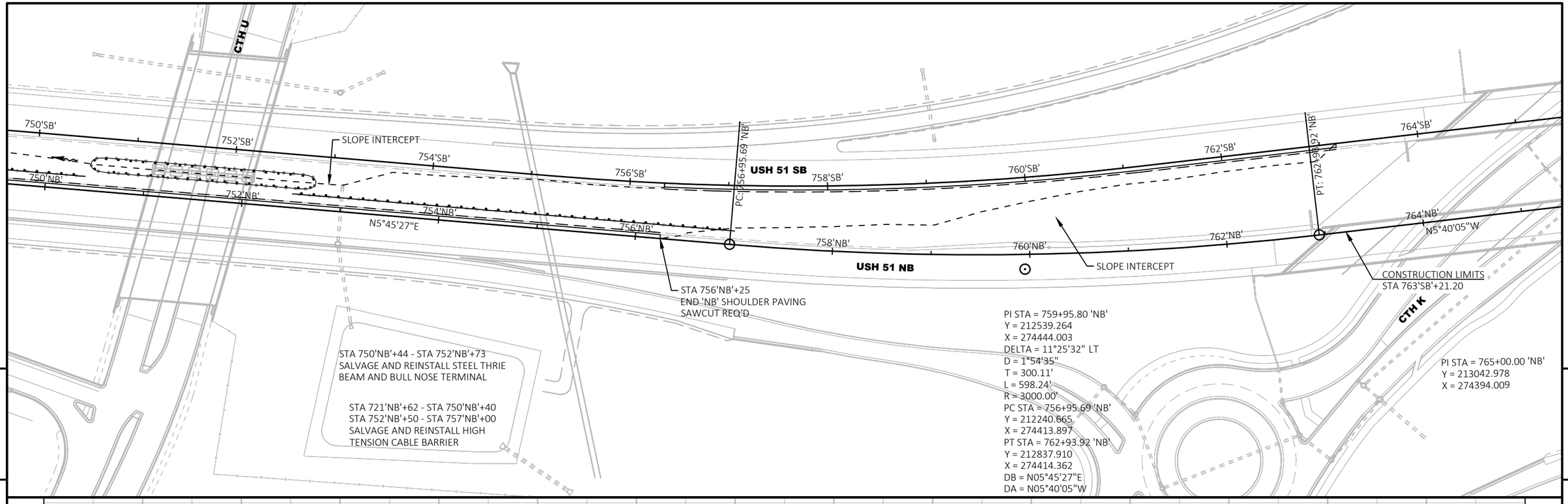
349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	PLAN AND PROFILE: TEMPORARY CROSSOVER ('X' LINE)	SHEET 68	E





PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	PLAN AND PROFILE: USH 51 NORTHBOUND ('NB' LINE)	SHEET 69	E



5

5

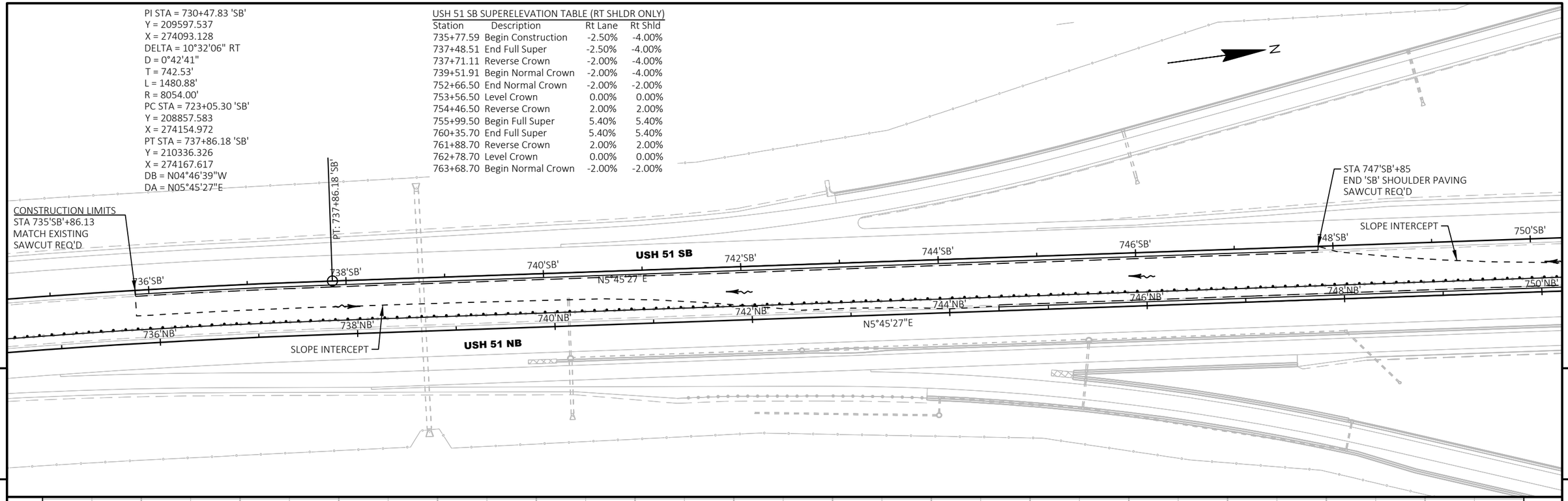
PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	PLAN AND PROFILE: USH 51 NORTHBOUND ('NB' LINE)	SHEET 70	E

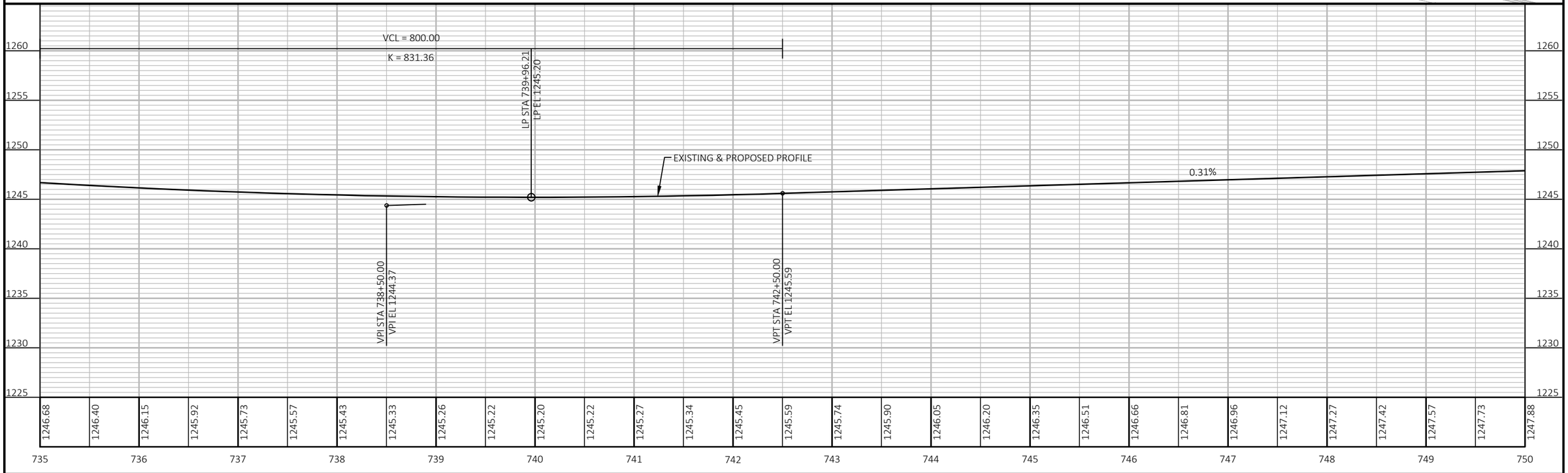
FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\SHEETSPLAN\050103-PP.DWG
LAYOUT NAME - 050104-pp
PLOT DATE : 4/28/2022 8:29 AM
PLOT BY : RESHESKE, CARRIE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

PI STA = 730+47.83 'SB'
Y = 209597.537
X = 274093.128
DELTA = 10°32'06" RT
D = 0°42'41"
T = 742.53'
L = 1480.88'
R = 8054.00'
PC STA = 723+05.30 'SB'
Y = 208857.583
X = 274154.972
PT STA = 737+86.18 'SB'
Y = 210336.326
X = 274167.617
DB = N04°46'39"W
DA = N05°45'27"E

USH 51 SB SUPERELEVATION TABLE (RT SHLDR ONLY)

Station	Description	Rt Lane	Rt Shld
735+77.59	Begin Construction	-2.50%	-4.00%
737+48.51	End Full Super	-2.50%	-4.00%
737+71.11	Reverse Crown	-2.00%	-4.00%
739+51.91	Begin Normal Crown	-2.00%	-4.00%
752+66.50	End Normal Crown	-2.00%	-2.00%
753+56.50	Level Crown	0.00%	0.00%
754+46.50	Reverse Crown	2.00%	2.00%
755+99.50	Begin Full Super	5.40%	5.40%
760+35.70	End Full Super	5.40%	5.40%
761+88.70	Reverse Crown	2.00%	2.00%
762+78.70	Level Crown	0.00%	0.00%
763+68.70	Begin Normal Crown	-2.00%	-2.00%





PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	PLAN AND PROFILE: USH 51 SOUTHBOUND ('SB' LINE)	SHEET 71	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\SHEETSPLAN\050105-PP.DWG
LAYOUT NAME - 050105-pp
PLOT DATE : 4/28/2022 8:31 AM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:100 FT

PI STA = 758+18.60 'SB'
Y = 212358.490
X = 274371.502
DELTA = 11°25'32" LT
D = 1°54'35"
T = 300.11'
L = 598.24'
R = 3000.00'
PC STA = 755+18.48 'SB'
Y = 212059.891
X = 274341.396
PT STA = 761+16.72 'SB'
Y = 212657.136
X = 274341.861
DB = N05°45'27"E
DA = N05°40'05"W

PI STA = 765+00.00 'SB'
Y = 213034.108
X = 274214.004

CONSTRUCTION LIMITS
STA 763'SB'+16.67
MATCH EXISTING
SAWCUT REQ'D

STA 756'SB'+35
BEGIN 'SB' SHOULDER PAVING
SAWCUT REQ'D

SLOPE INTERCEPT

SLOPE INTERCEPT

CTH U

CTH K

USH 51 SB

USH 51 NB

PC: 755+18.48 'SB'

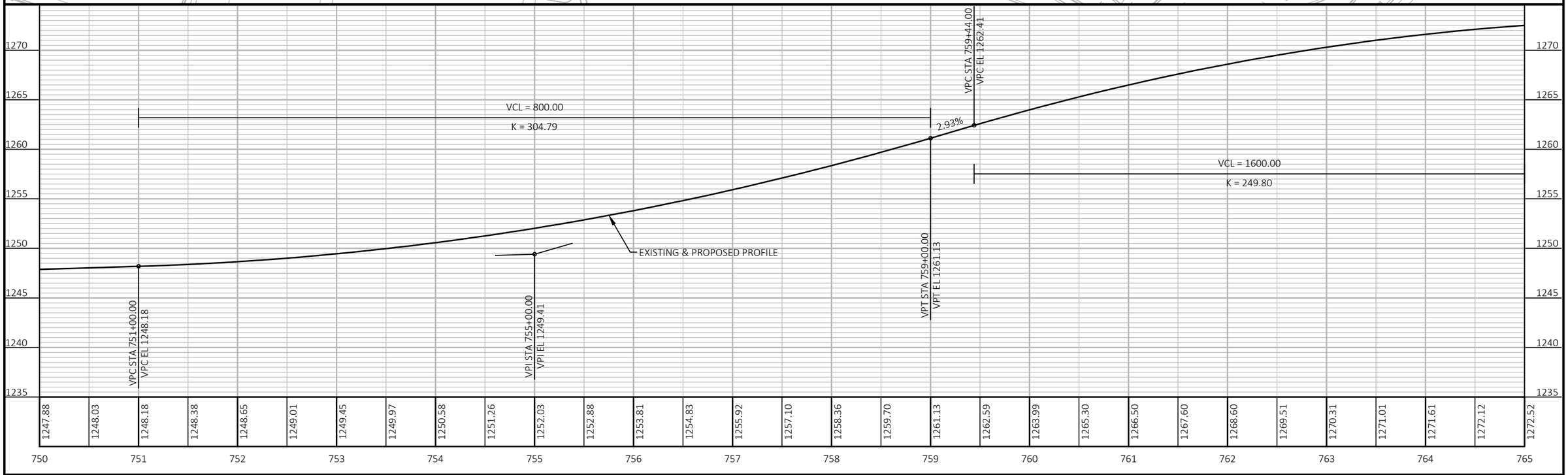
PT: 761+16.72 'SB'

750'SB' 752'SB' 754'SB' 756'SB' 758'SB' 760'SB' 762'SB' 764'SB'

750'NB' 752'NB' 754'NB' 756'NB' 758'NB' 760'NB' 762'NB' 764'NB'

N5°45'27"E N5°45'27"E N5°40'05"W N5°40'05"W

5 5

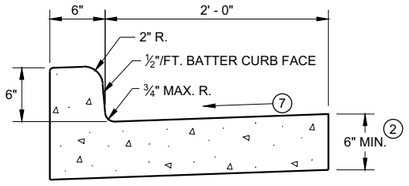


PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	PLAN AND PLOT: USH 51 SOUTHBOUND ('SB' LINE)	SHEET 72	E

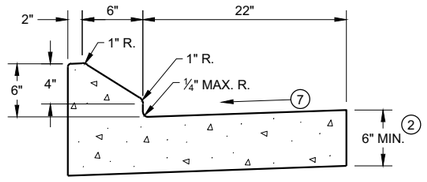
Standard Detail Drawing List

08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D15-05A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
08D15-05B	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08D15-05C	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
14B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B26-04A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04F	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04G	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04H	STEEL THRIE BEAM BULLNOSE TERMINAL
14B52-02A	CABLE BARRIER TYPE 1 LAYOUT
14B52-02B	CABLE BARRIER TYPE 1 LAYOUT
14B52-02C	CABLE BARRIER TYPE 1 LAYOUT
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-08D	ON RAMP LANE CLOSURE
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D05-05	TRAFFIC CONTROL, SINGLE LANE CROSSOVER ENTRANCE WITH BARRIER
15D10-05	TRAFFIC CONTROL, SINGLE LANE CROSSOVER EXIT WITH BARRIER
15D11-08	TRAFFIC CONTROL, SINGLE LANE CROSSOVER
15D12-10A	TRAFFIC CONTROL, LANE CLOSURE
15D12-10B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D15-06B	TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-06E	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D30-06A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-06B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-06C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D50-02B	TRAFFIC CONTROL, ADDED LANE CLOSURE WITH LANE SHIFT

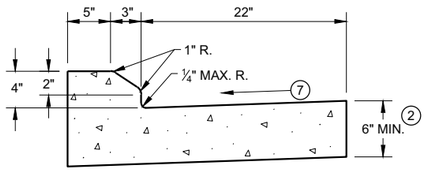
6



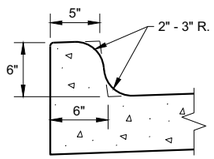
TYPES A (1) & D



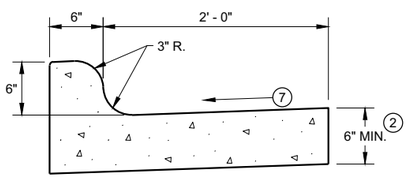
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

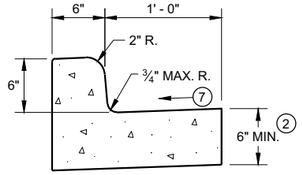


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



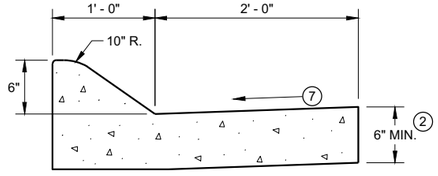
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"



TYPES A (1) & D

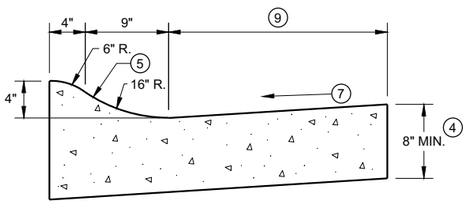
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

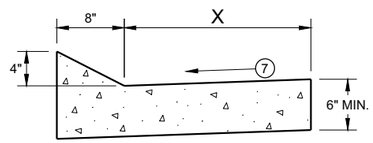
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

TBT & TBTT	X
30"	22"
36"	28"

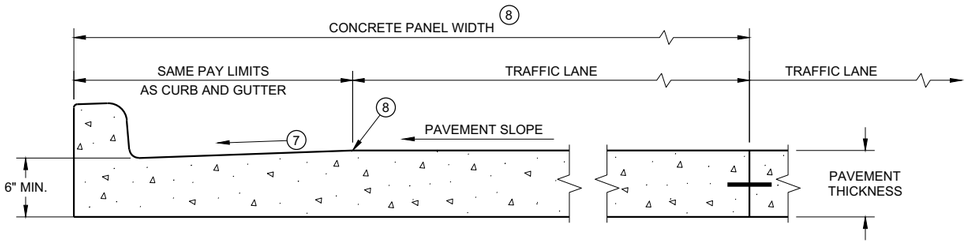


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

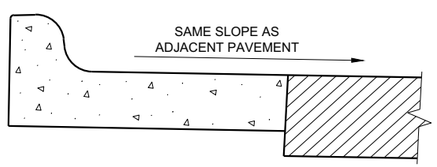
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

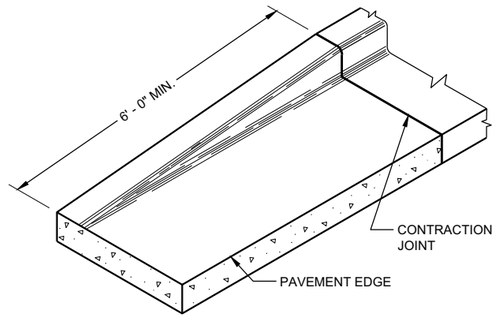
(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

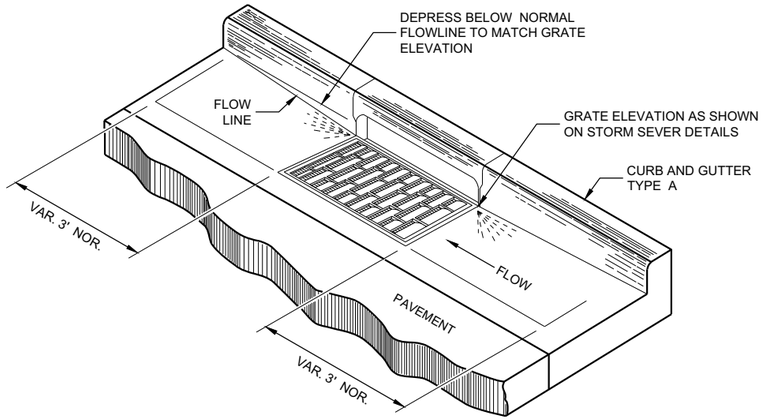
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 08D01 - 22a
SDD 08D01 - 22a



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS
(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

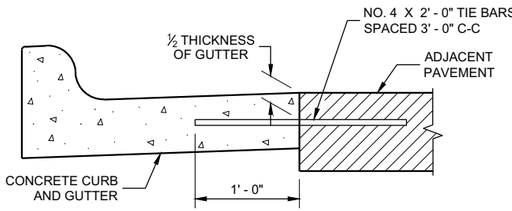
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

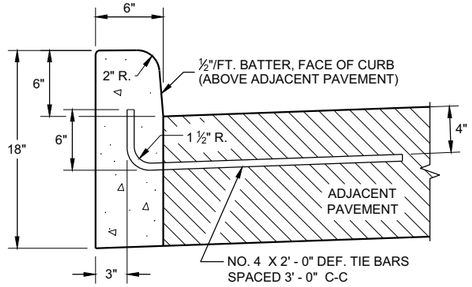
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

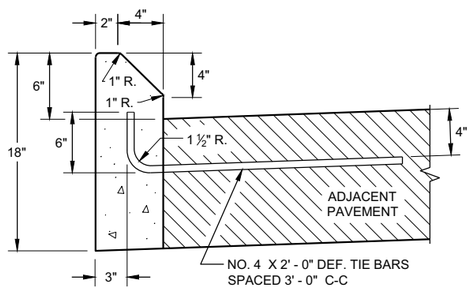
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

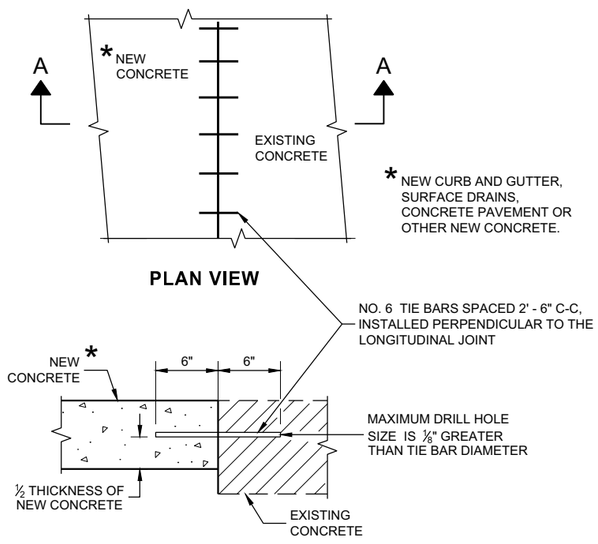


TYPES A (1) & D



TYPES G (1) & J

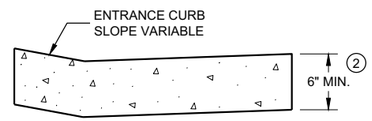
CONCRETE CURB



PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (9)
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

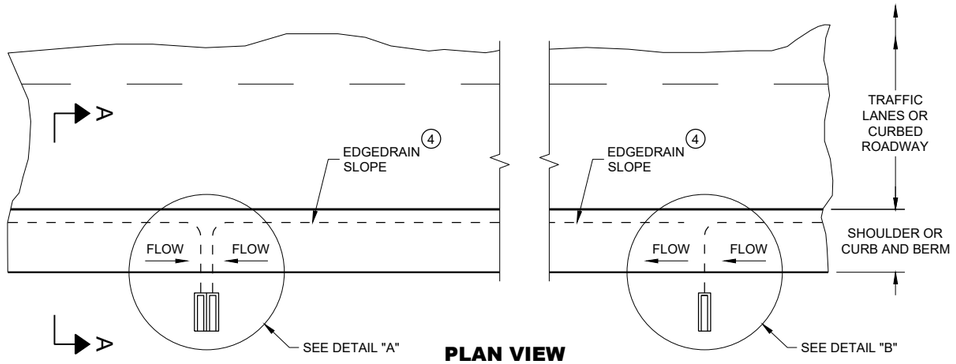
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

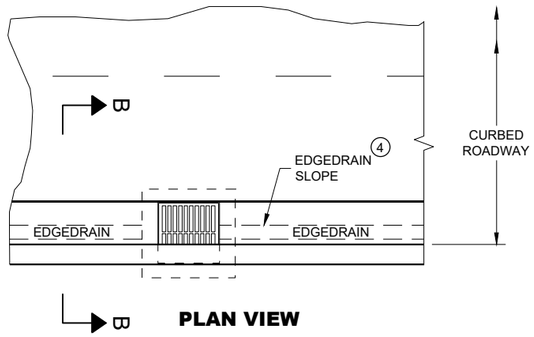
6

SDD08D01 - 22b



PLAN VIEW

ROADWAY WITH SHOULDERS OR CURBS
(EDGEDRAIN CONNECTS TO ROADSIDE) (2)



PLAN VIEW

ROADWAY WITH CURBS
(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

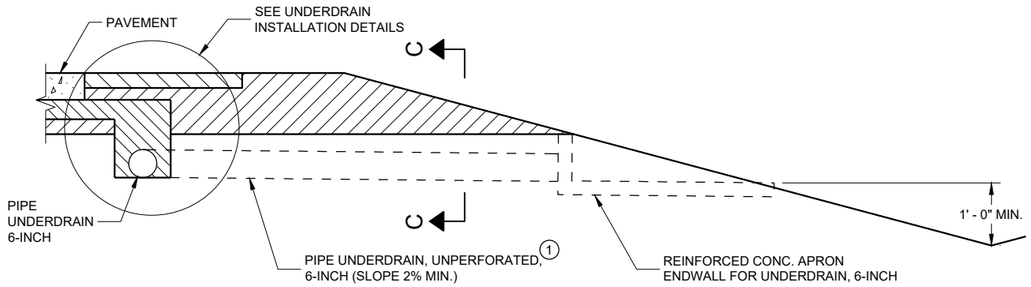
POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.

(2) MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.

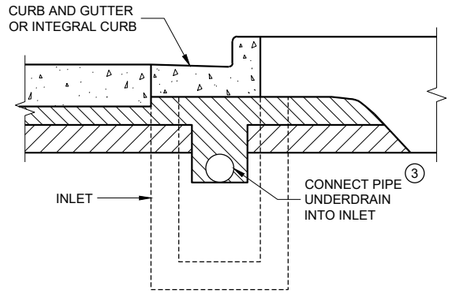
(3) EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.

(4) EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



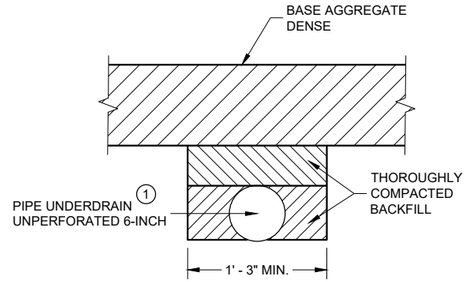
SECTION A - A

RURAL CROSS SECTION



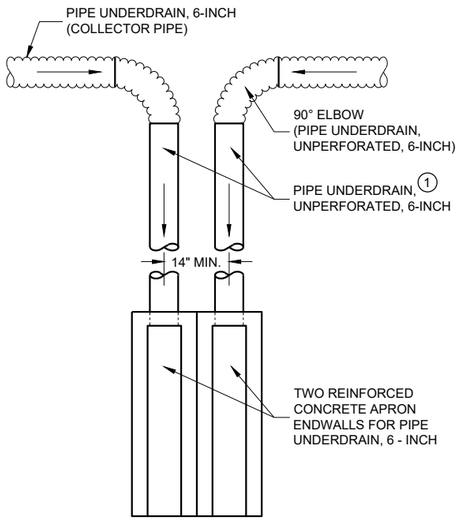
SECTION B - B

URBAN CROSS SECTION

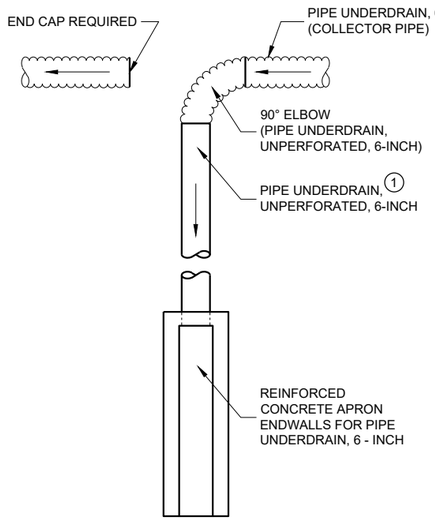


SECTION C - C

TRENCH FOR OUTFALL PIPE

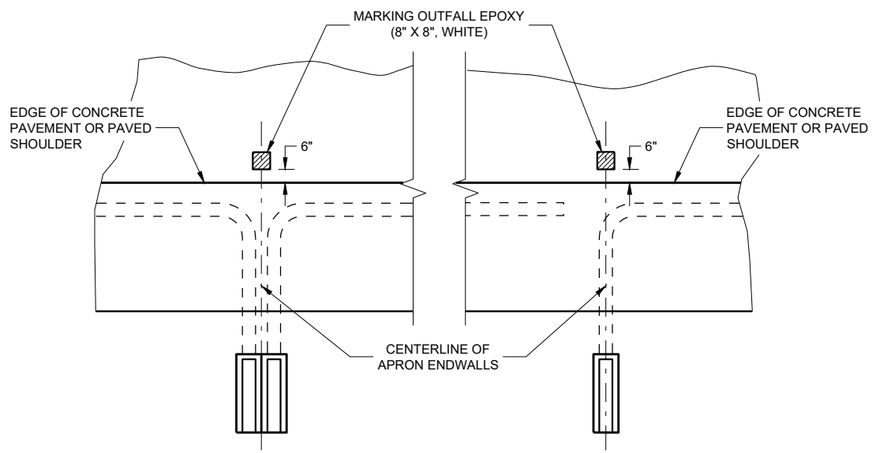


DETAIL "A"
TO BE USED AT LOW POINT LOCATIONS



DETAIL "B"
TO BE USED AT INTERMEDIATE LOCATIONS

TYPICAL DRAIN OUT DETAILS



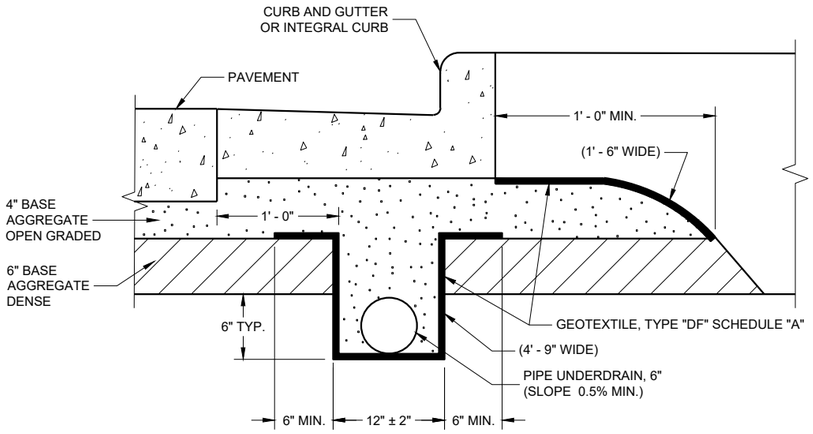
LOW POINT LOCATIONS — INTERMEDIATE LOCATIONS

PAVEMENT MARKINGS FOR OUTFALL MARKERS

EDGEDRAIN OUTLET AND OUTFALL MARKERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD08D15 - 05a



EDGEDRAIN IN URBAN ROADWAY

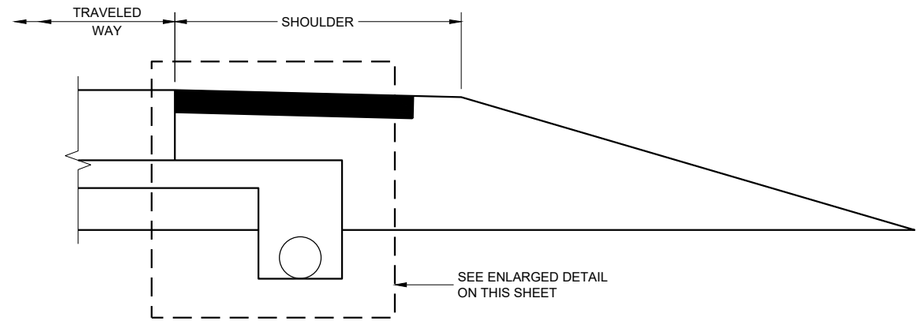
GENERAL NOTES

THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

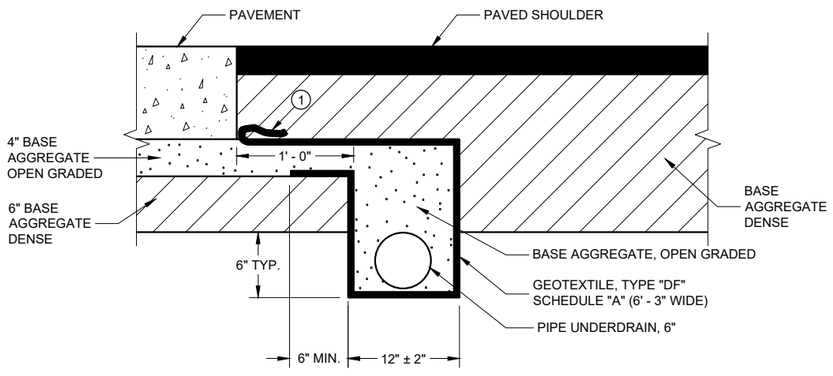
(1) FOLD OVER EXCESS GEOTEXTILE AT THIS LOCATION.

(2) TOTAL GEOTEXTILE WIDTH IS 6'-3" FOR PAYMENT.



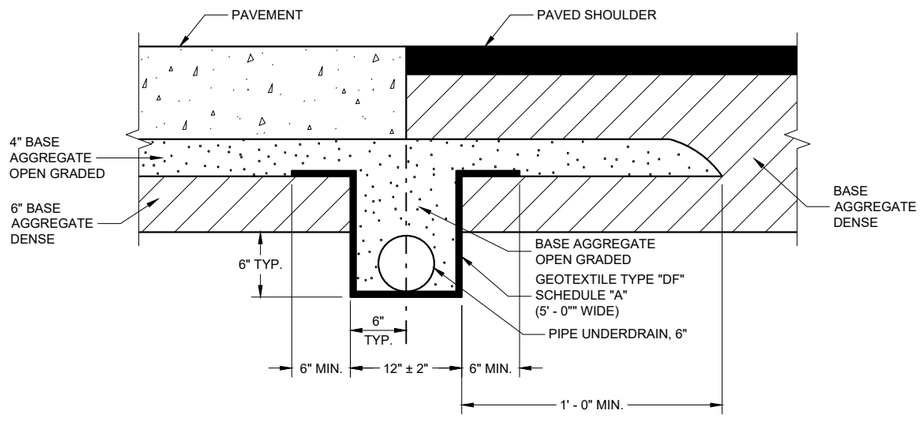
RURAL CROSS SECTION

6



POST PAVING INSTALLATION

(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

EDGEDRAIN IN RURAL ROADWAY

6

SDD 08D15 - 05b

EGEDRAIN AND BASE AGGREGATE OPEN GRADED

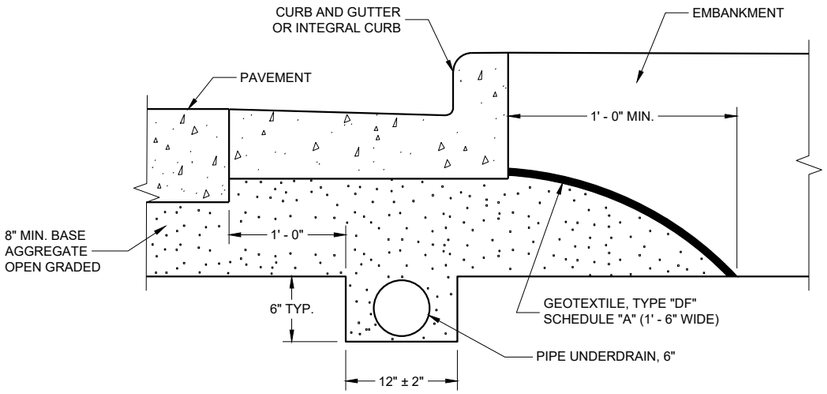
STATE OF WISCONSIN
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SDD 08D15 - 05b

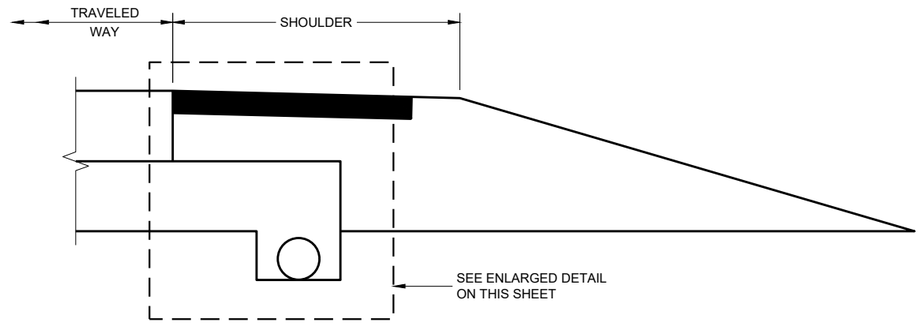
GENERAL NOTES

THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

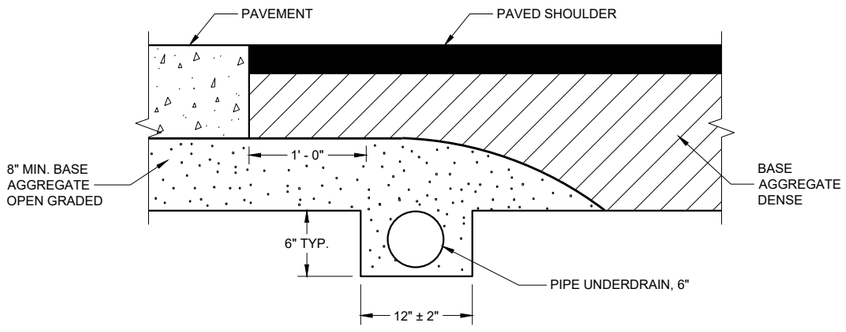
PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.



EDGEDRAIN IN URBAN ROADWAY

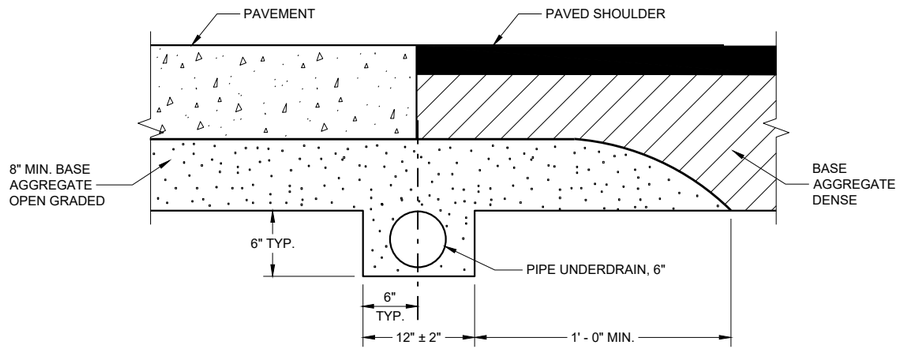


RURAL CROSS SECTION



POST PAVING INSTALLATION

(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

EDGEDRAIN IN RURAL ROADWAY

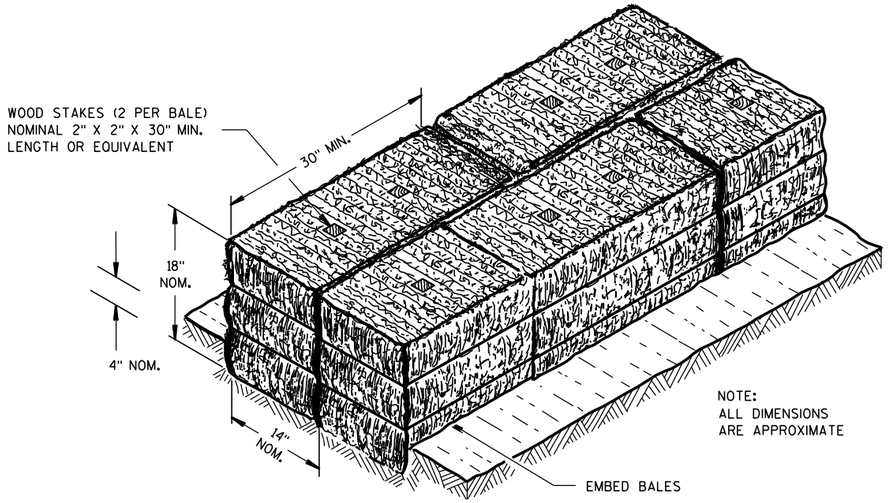
EDGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

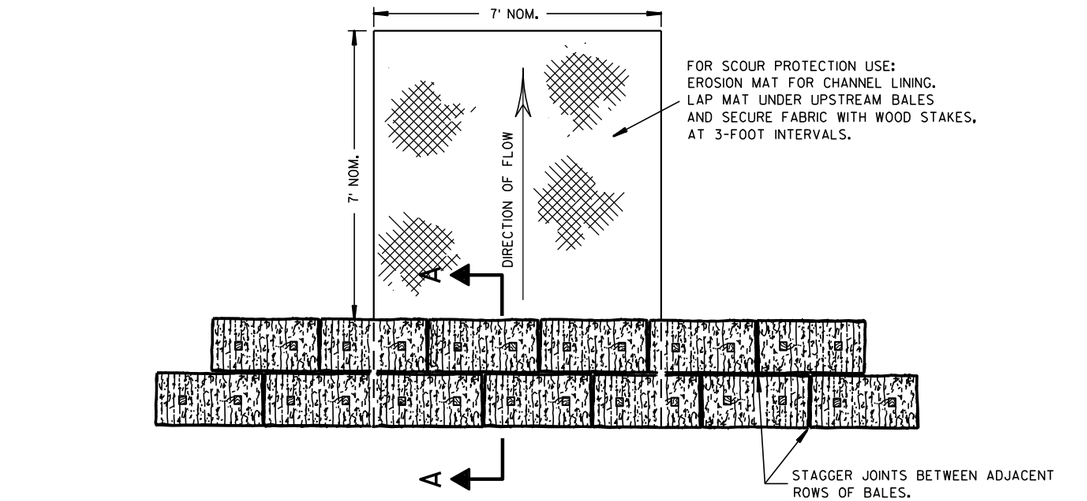
APPROVED
September 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPERVISO
FHWA

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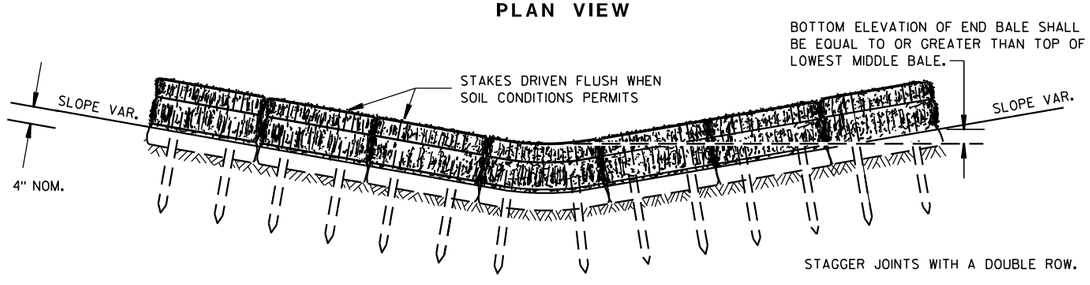
SDD 08D15 - 05c



SECTION A-A



PLAN VIEW



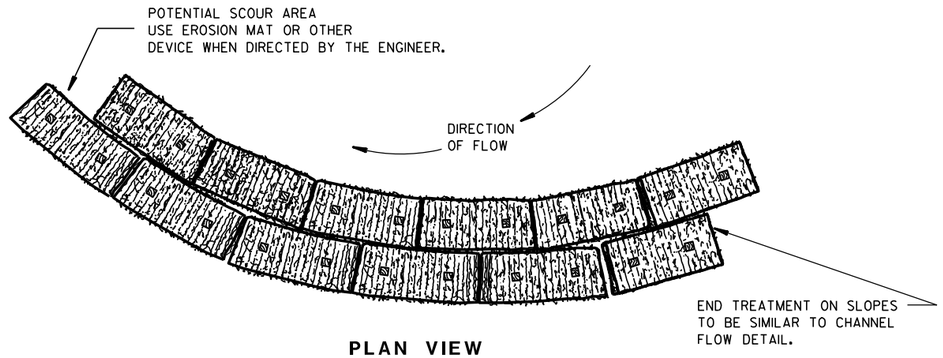
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

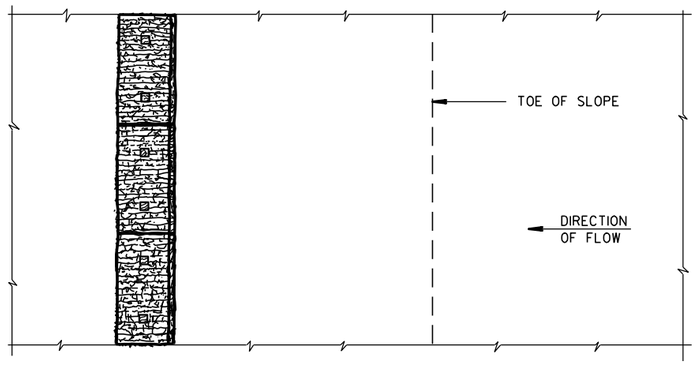
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

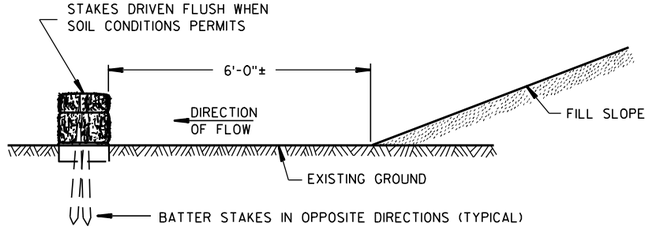


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

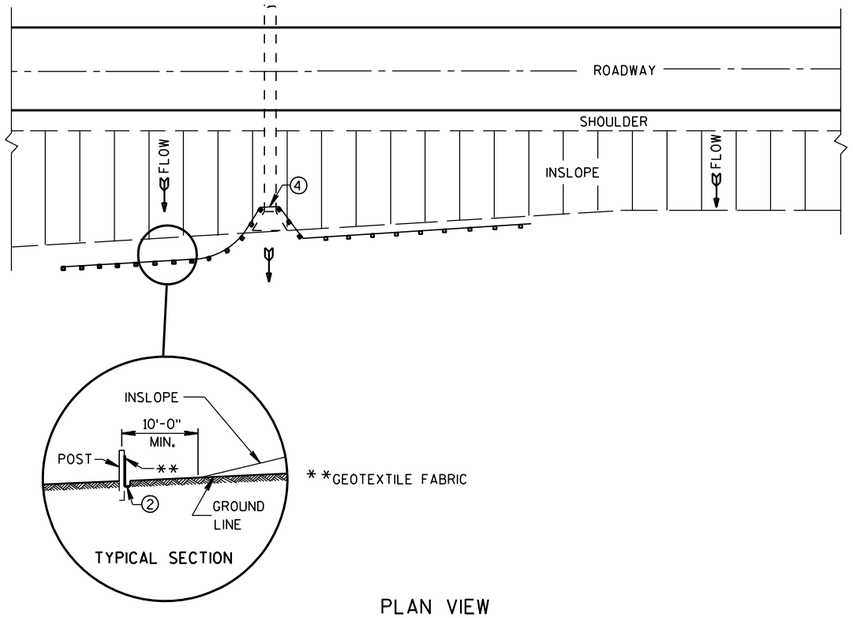
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

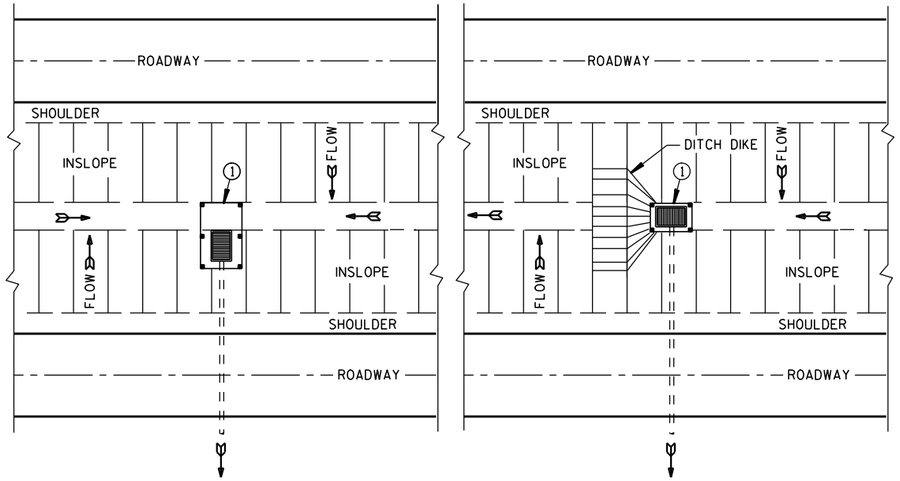
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



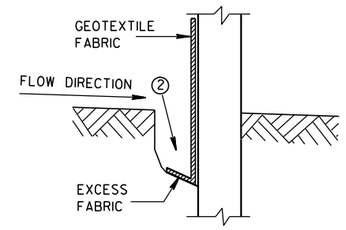
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

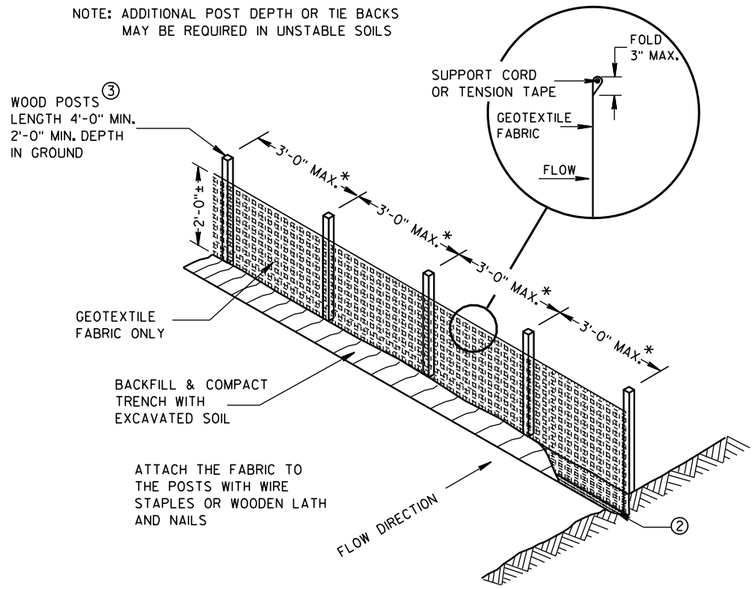
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

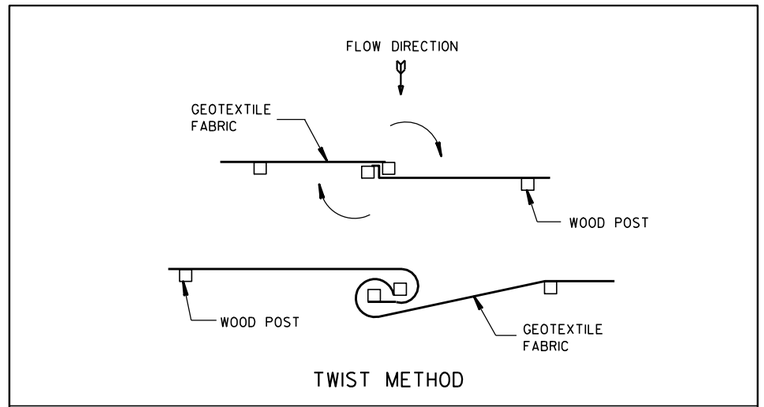
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



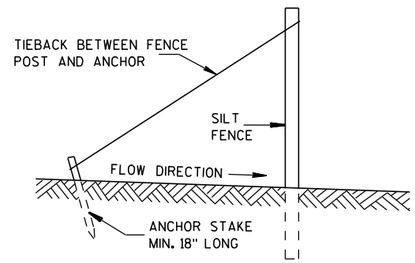
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

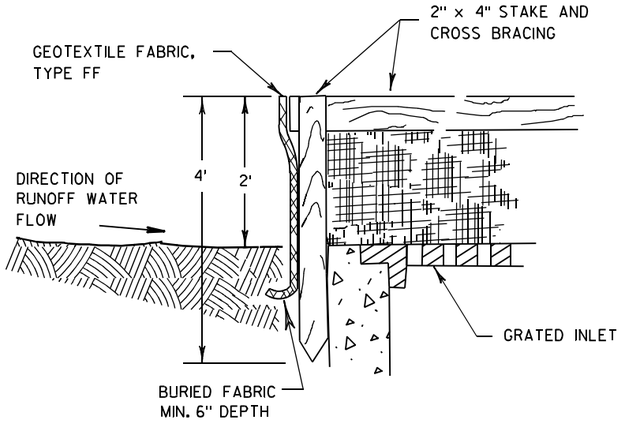
(WHEN REQUIRED BY THE ENGINEER)

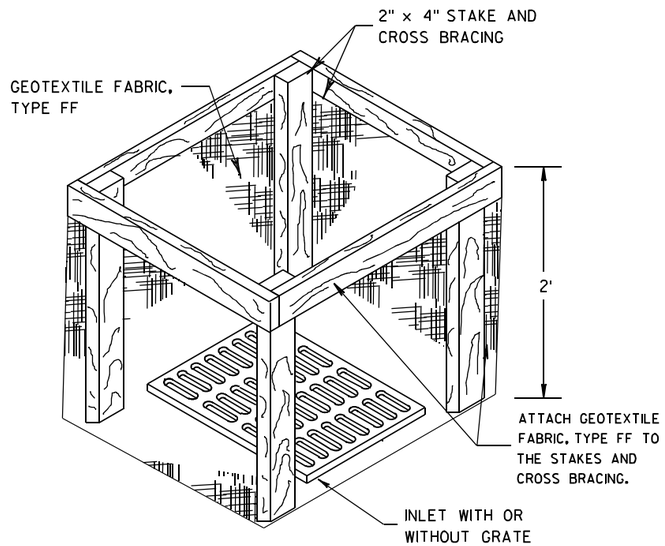
SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

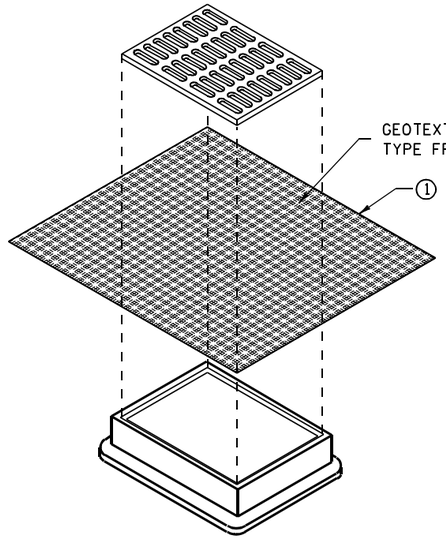
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 9-6



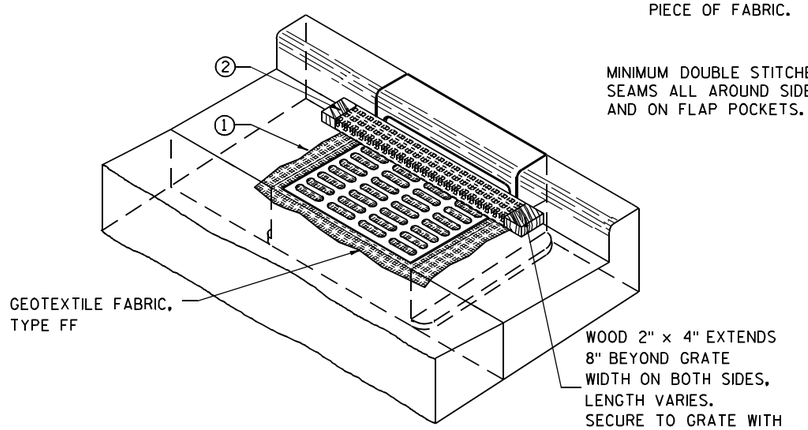


INLET PROTECTION, TYPE A

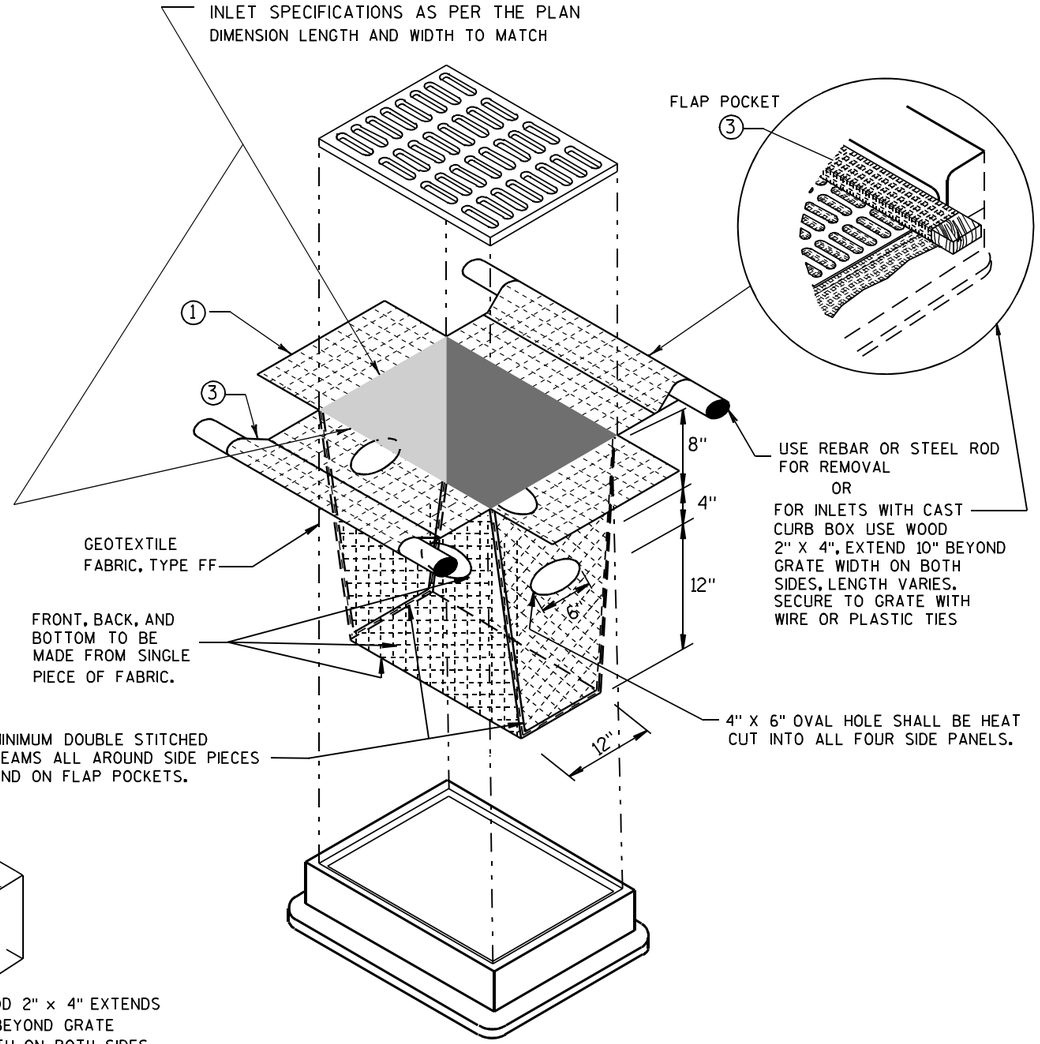


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

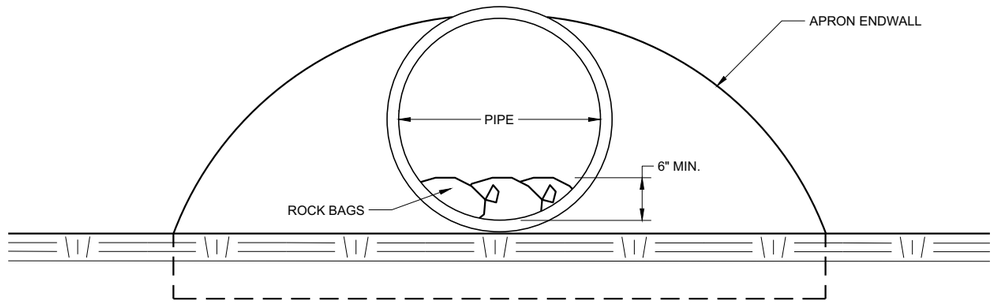
FHWA

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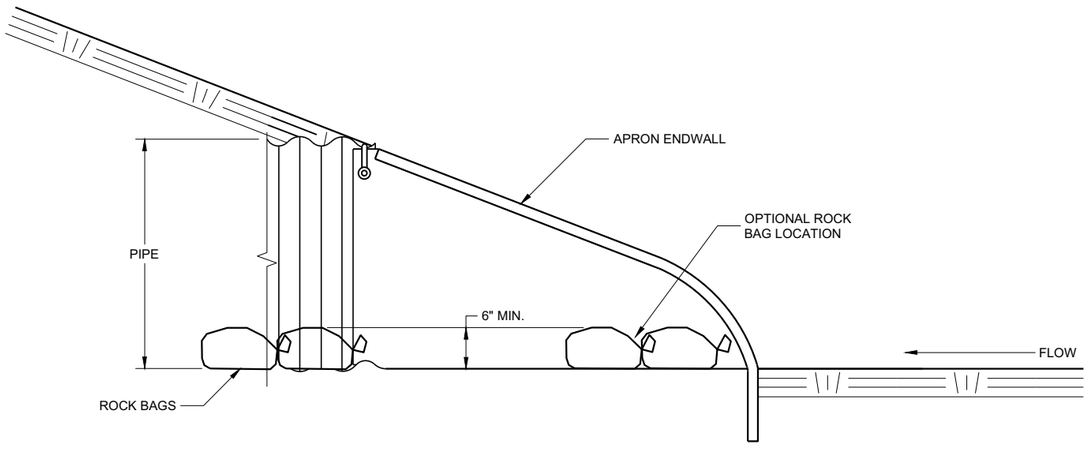
S.D.D. 8 E 10-2

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S.D.D. 8 E 10-2



END VIEW



SIDE VIEW

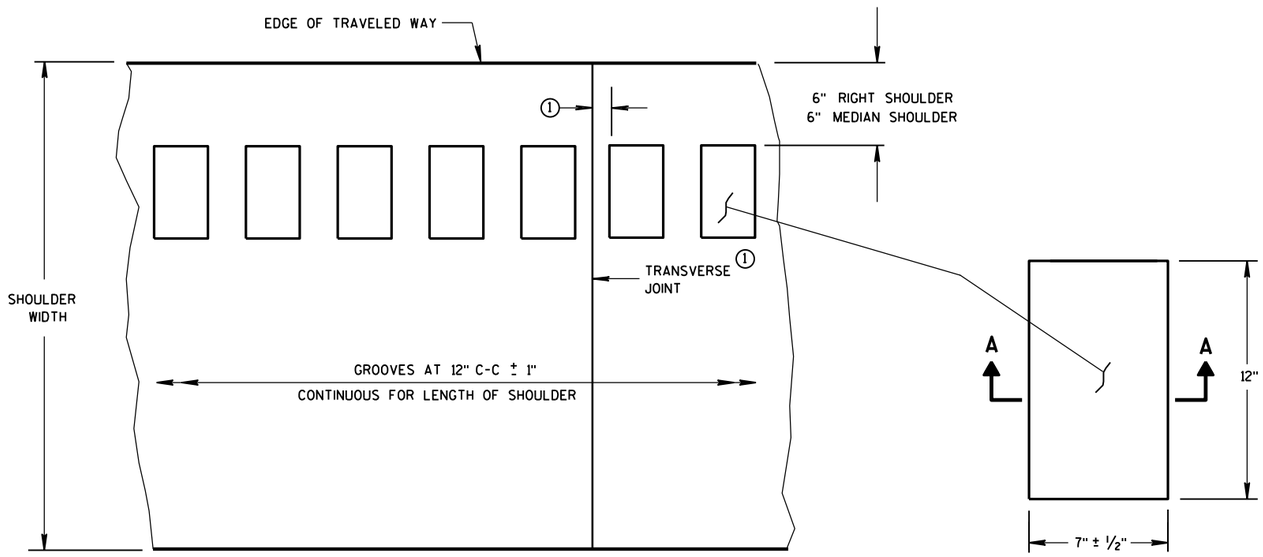
CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI
FHWA	

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SDD 08E15 - 01



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

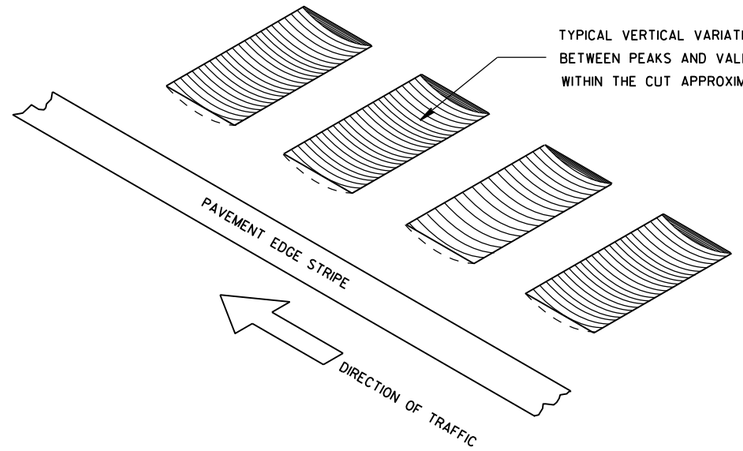
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

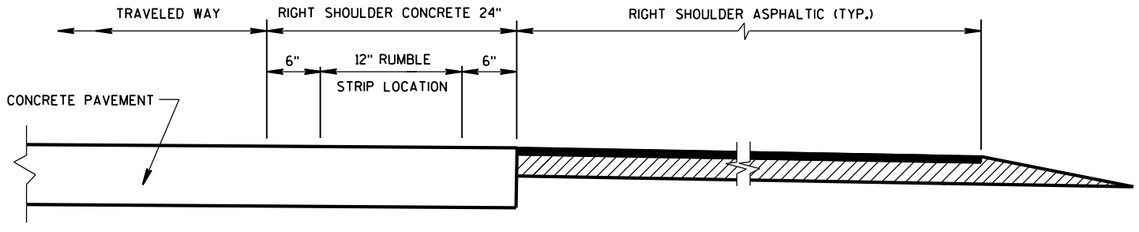
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

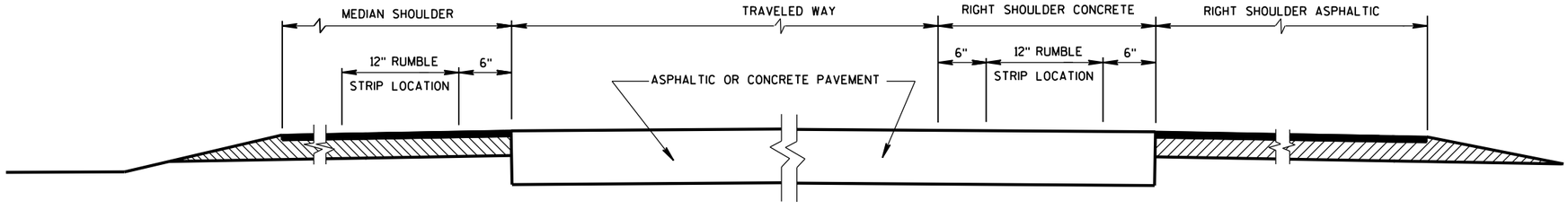
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



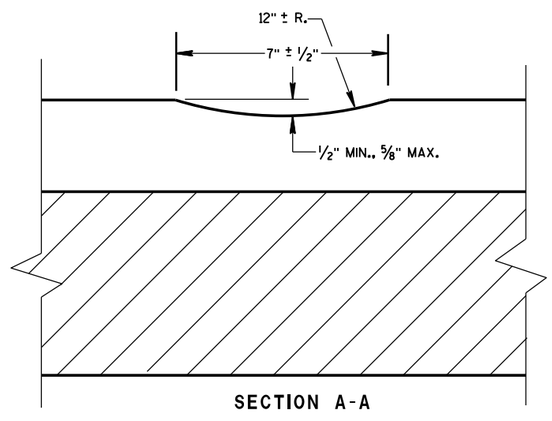
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

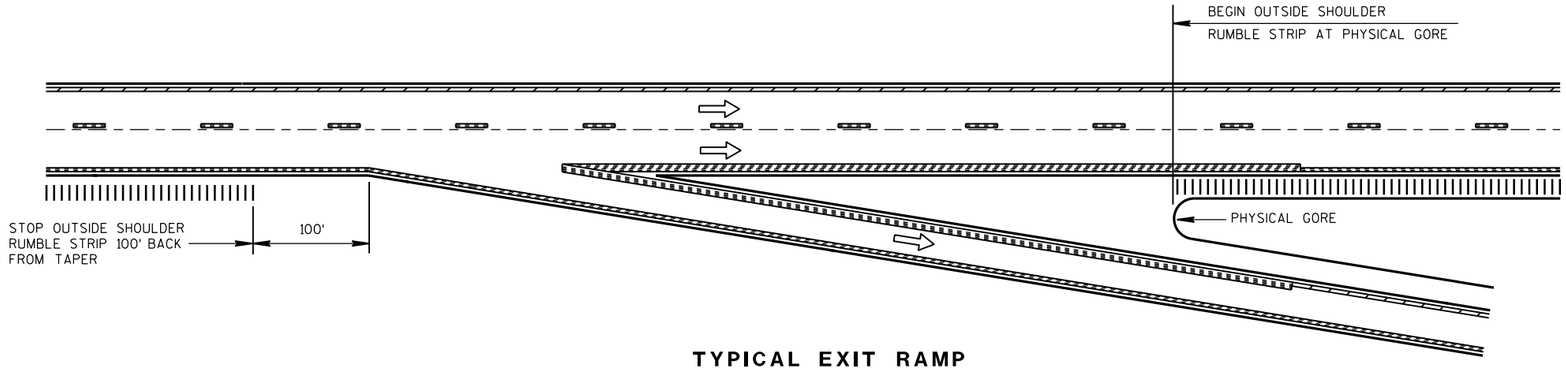
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 13 A 5-5a

6

S.D.D. 13 A 5-5a



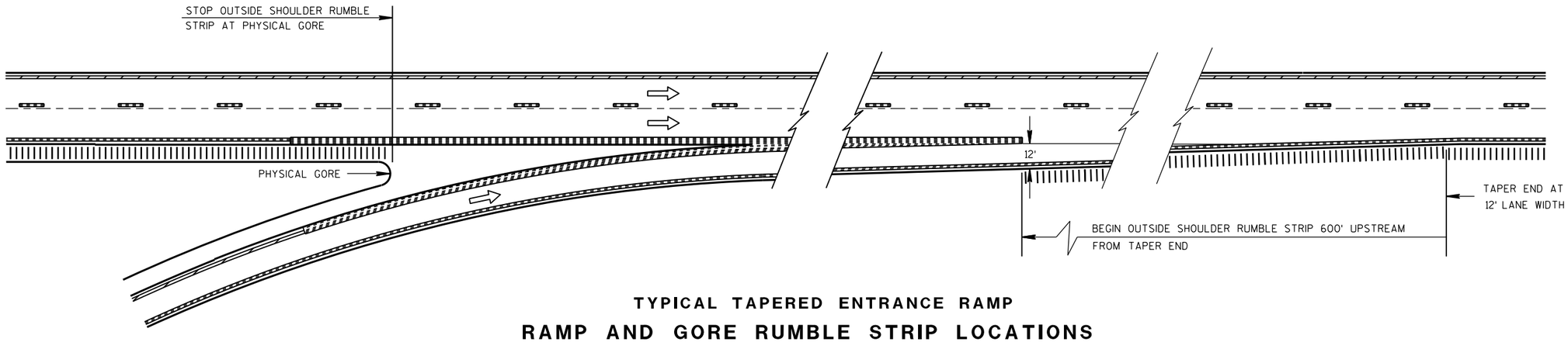
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

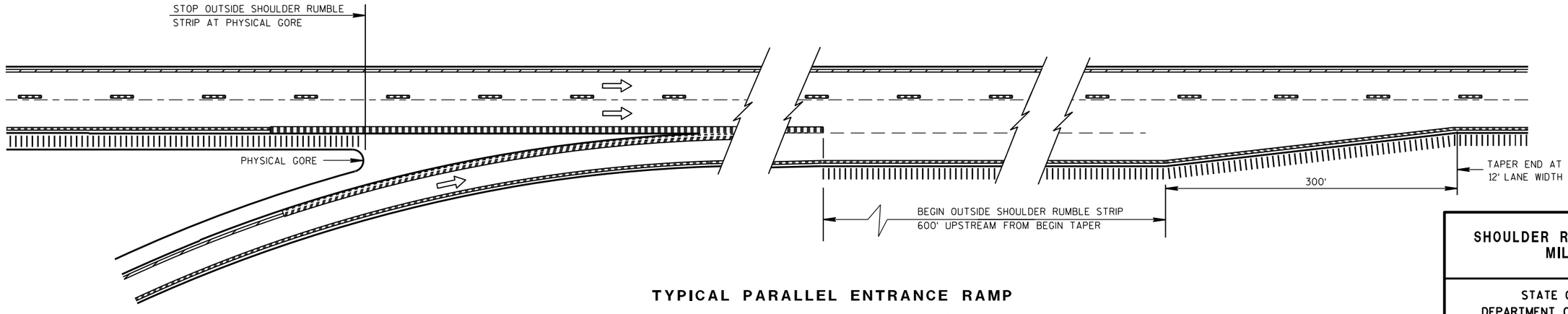
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

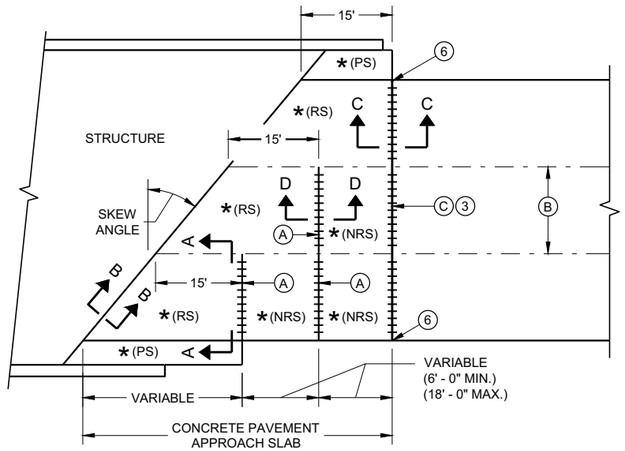
FHWA

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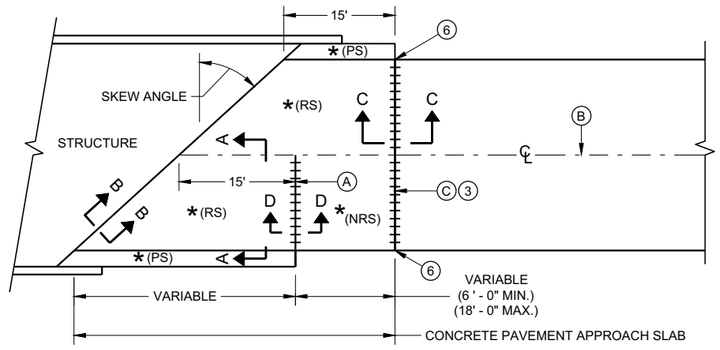
S.D.D. 13 A 5-5b

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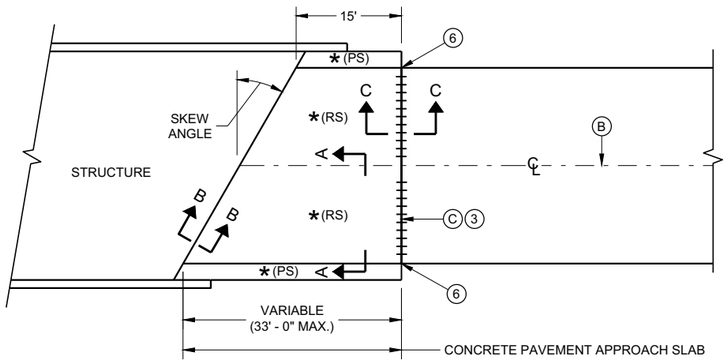
S.D.D. 13 A 5-5b



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

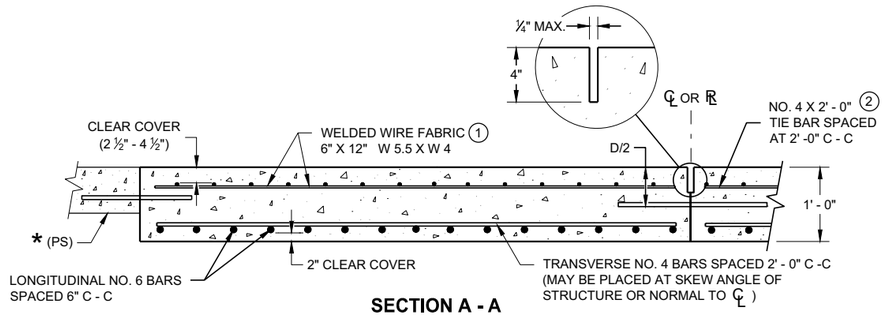
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

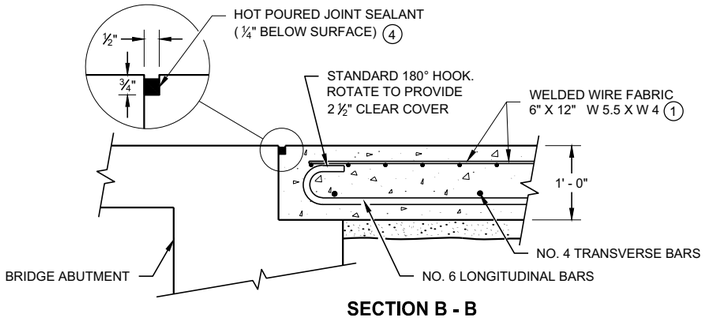
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

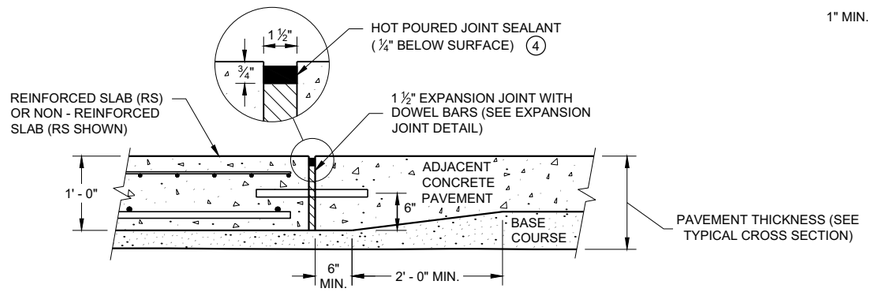
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0 " C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

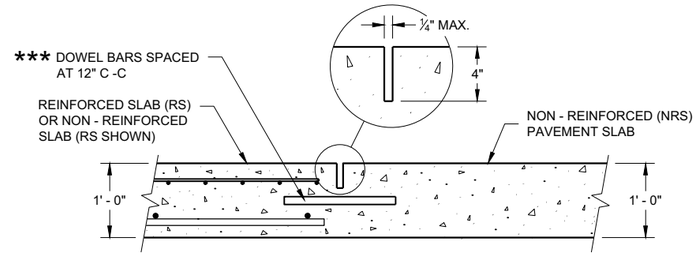
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

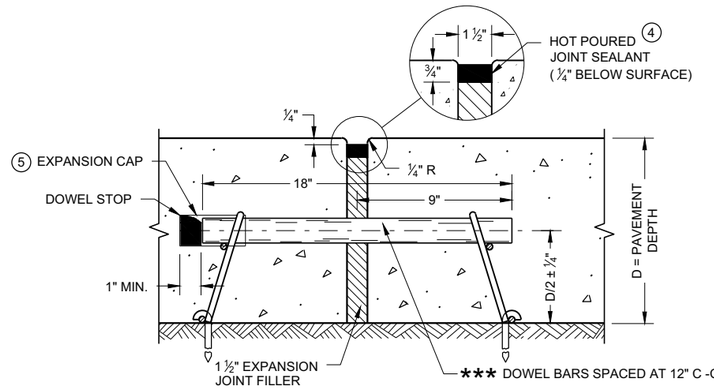
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞ .



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

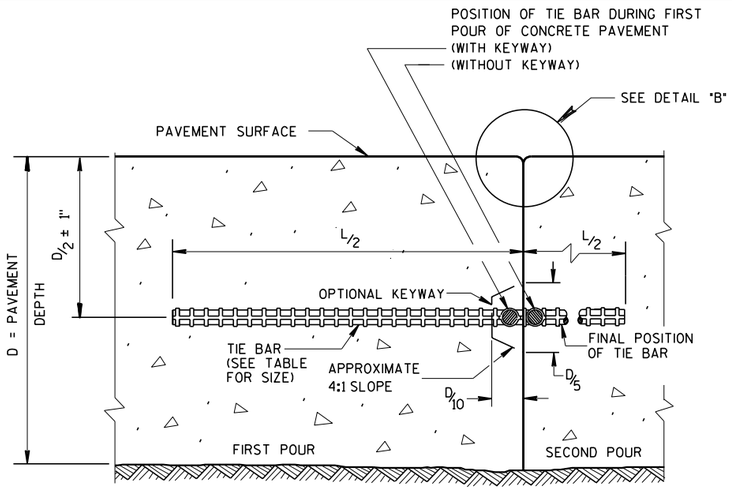
APPROVED
November 2018
DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPERVIS

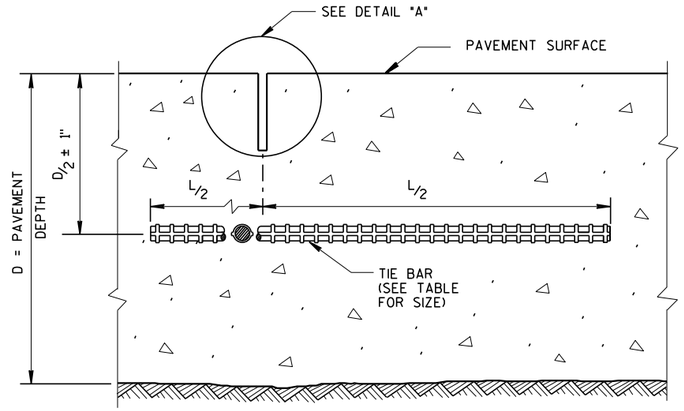
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SDD 13B02 - 09a



CONSTRUCTION JOINT



SAWED JOINT

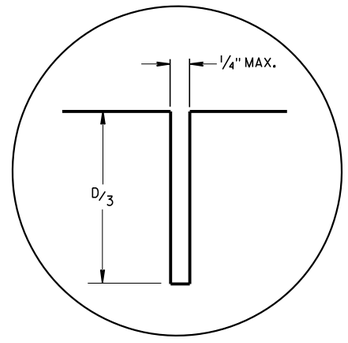
GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

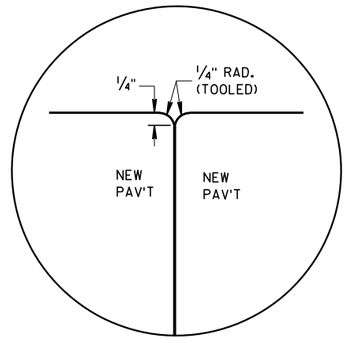
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

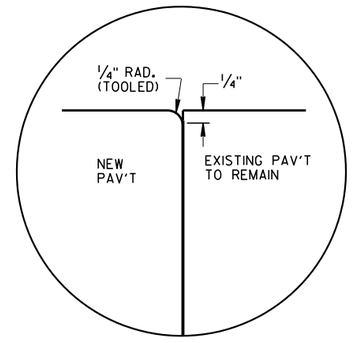
(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.



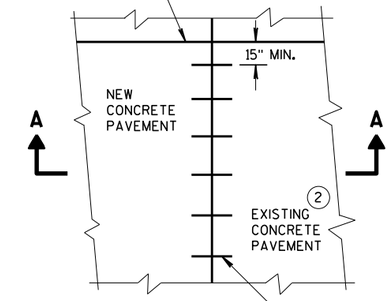
DETAIL "A"



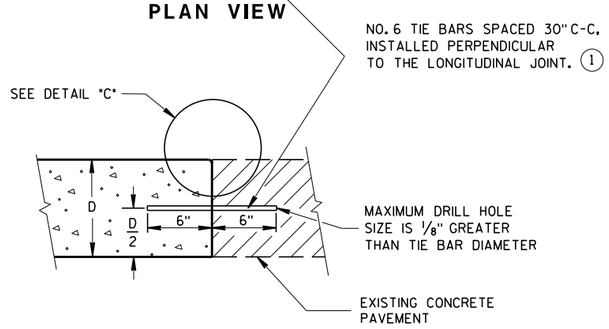
DETAIL "B"



DETAIL "C"



PLAN VIEW



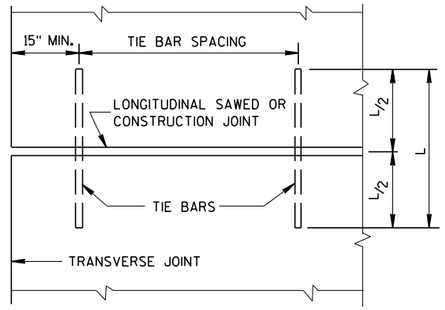
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

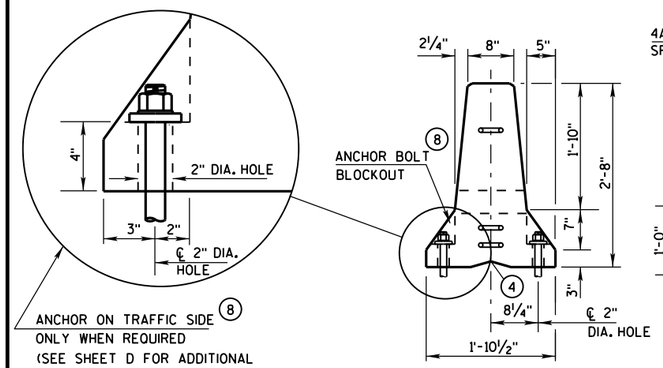
APPROVED
March 2018 — DATE
/S/ Peter Kemp — PAVEMENT SUPE
FHWA

6

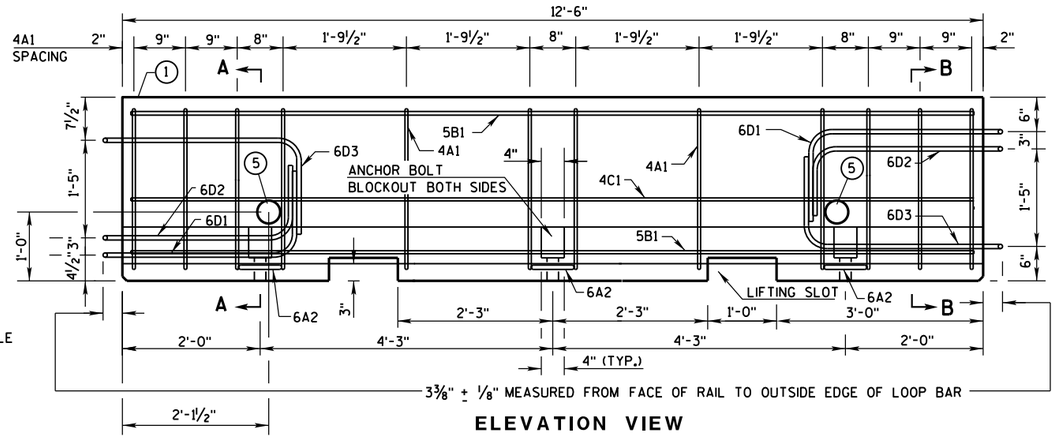
S.D.D. 13 C 1-19

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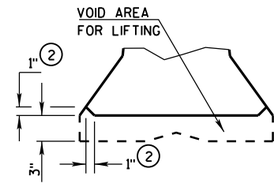
S.D.D. 13 C 1-19



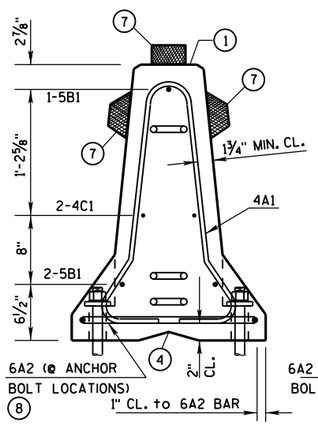
END VIEW



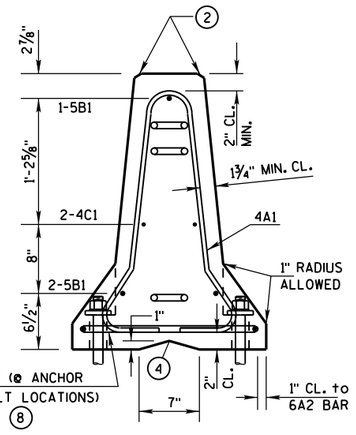
ELEVATION VIEW



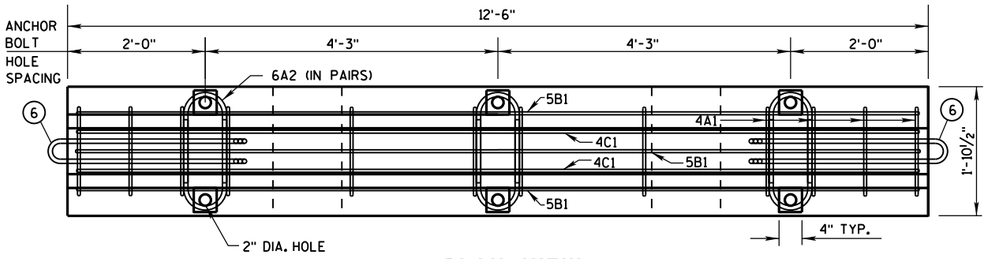
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)



PLAN VIEW

DETAILS OF BARRIER SECTION

GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-15(a) THRU 14B7-15(i).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

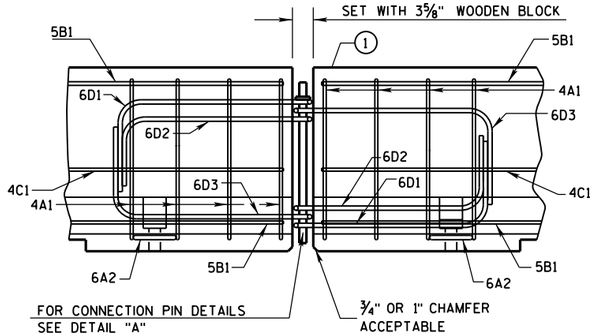
(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

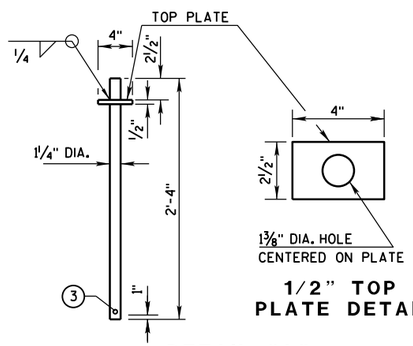
(8) SEE SHEET D FOR HOW TO ANCHOR BARRIER. SEE SHEET E FOR WHEN TO ANCHOR BARRIER.

(9) 1" CHAMFER OPTIONAL.

f'c = 4,000 psi

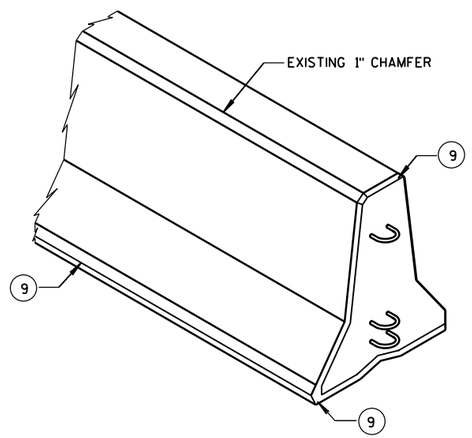


DETAILS OF BARRIER CONNECTION



1/2" TOP
PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))

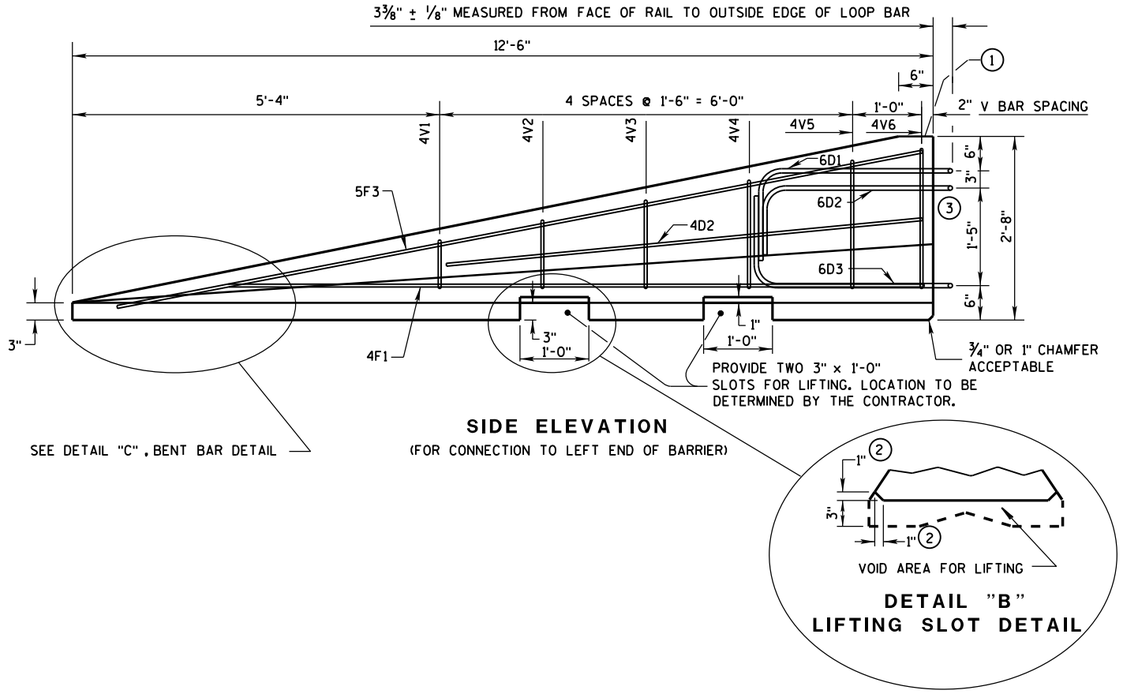


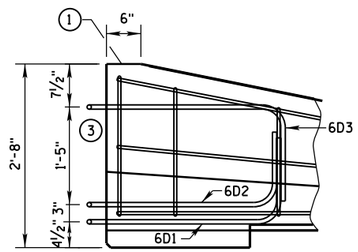
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 87

S.D.D. 14 B 7-15a

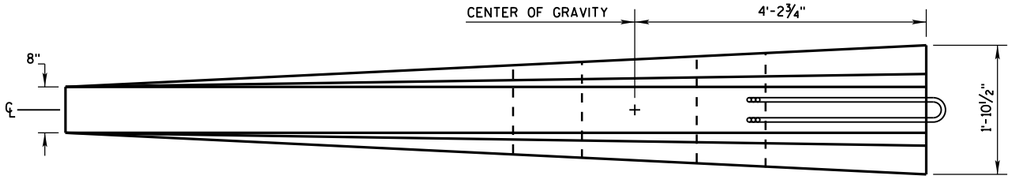
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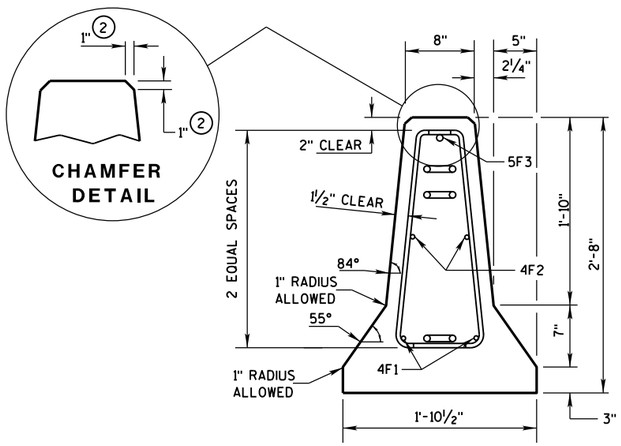


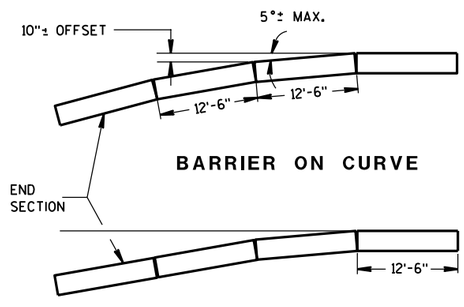


GENERAL NOTES

1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.







POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 88

6

S.D.D. 14 B 7-15b

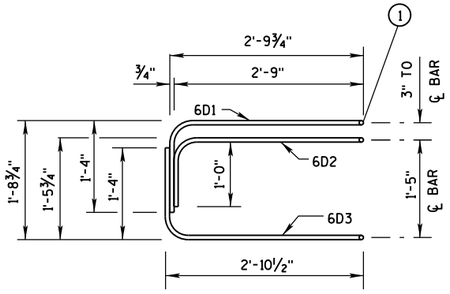
6

S.D.D. 14 B 7-15b

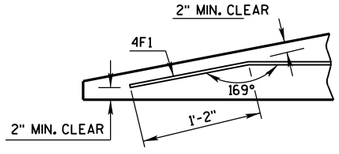
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

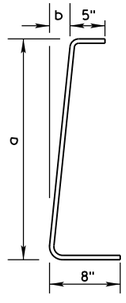
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

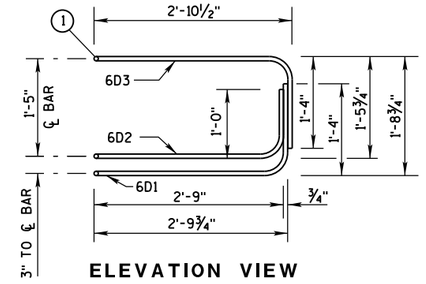
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

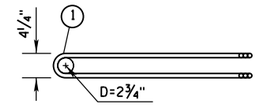
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

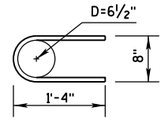
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



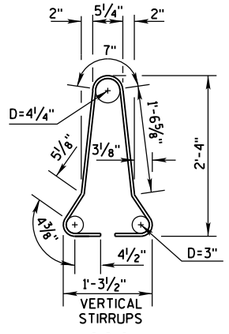
ELEVATION VIEW



PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



4A1

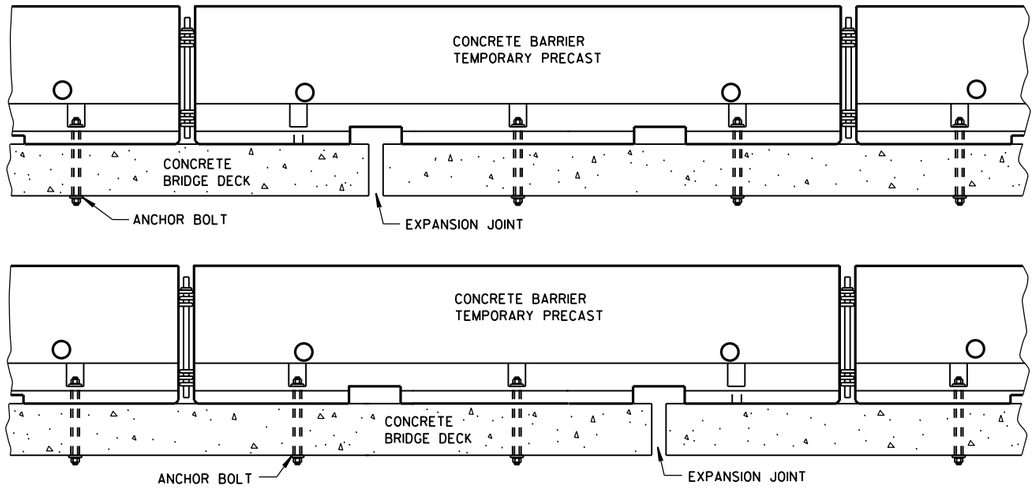
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 7-15c



TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)

GENERAL NOTES

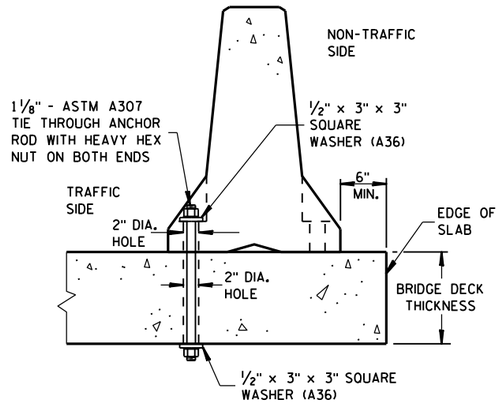
SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERICAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(1) 1⅛" DIAMENTER A307 THREADED ROD. ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL. ASTM A563A HEAVY HEX NUT.

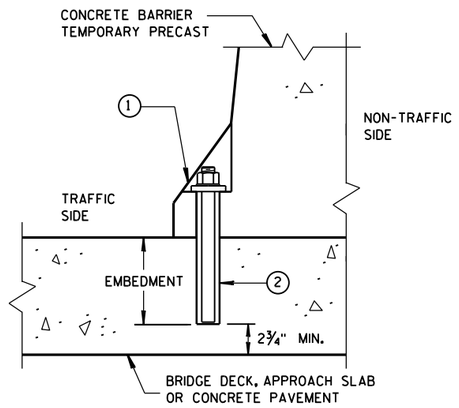
(2) ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

(3) ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THAN DRIVE ASPHALT ANCHOR PIN.



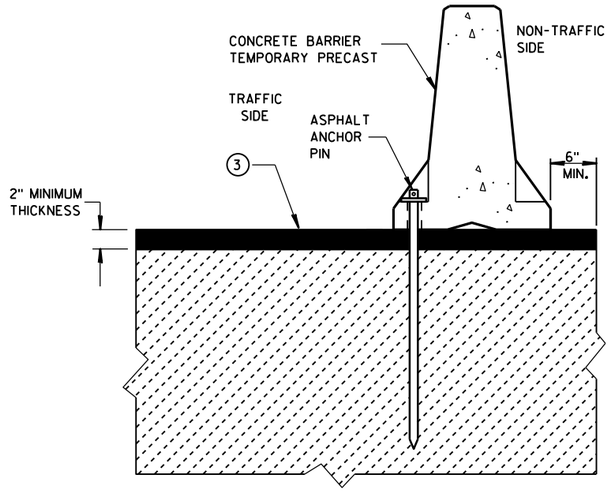
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)

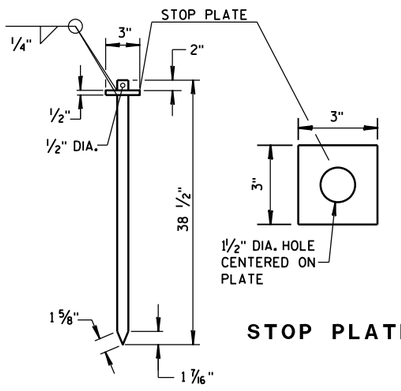


REMOVABLE ADHESIVE ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



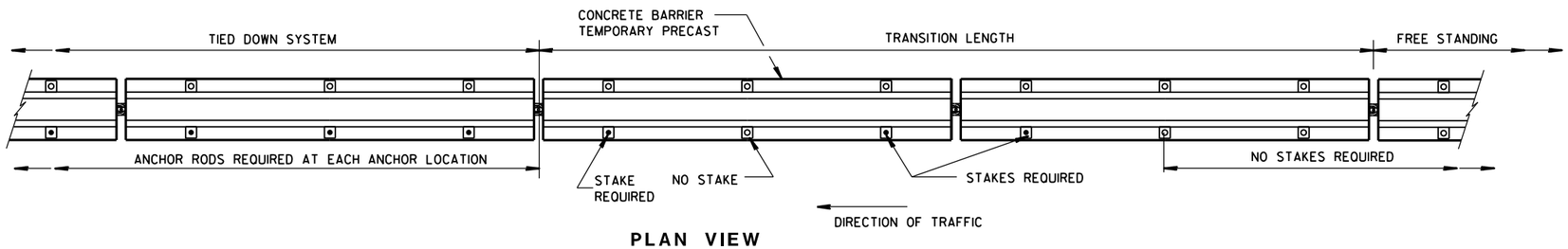
STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE



STOP PLATE

ASPHALT ANCHOR PIN

(ASTM A36 STEEL)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

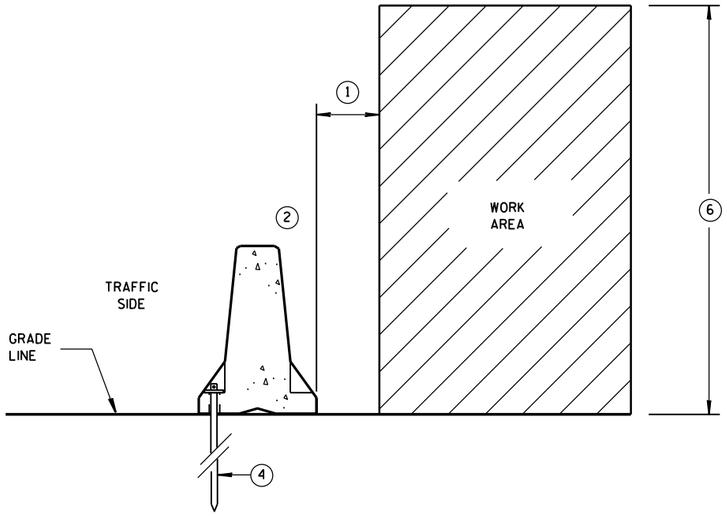
(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

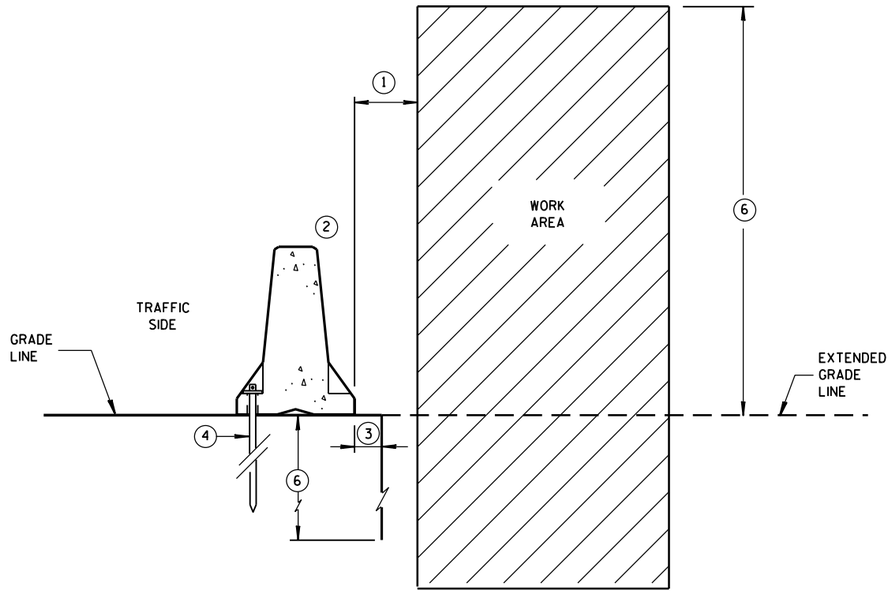
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 7-15d



ANCHORED BARRIER SPACE REQUIREMENTS FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

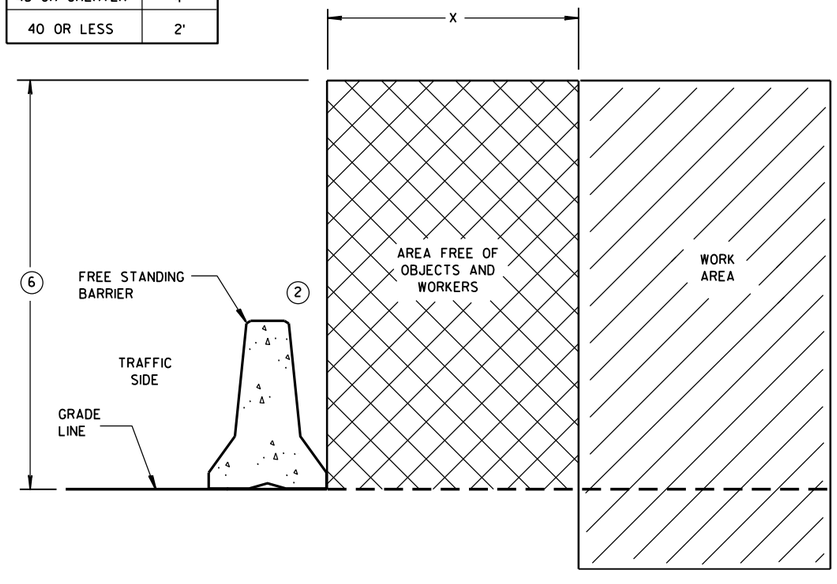


ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS

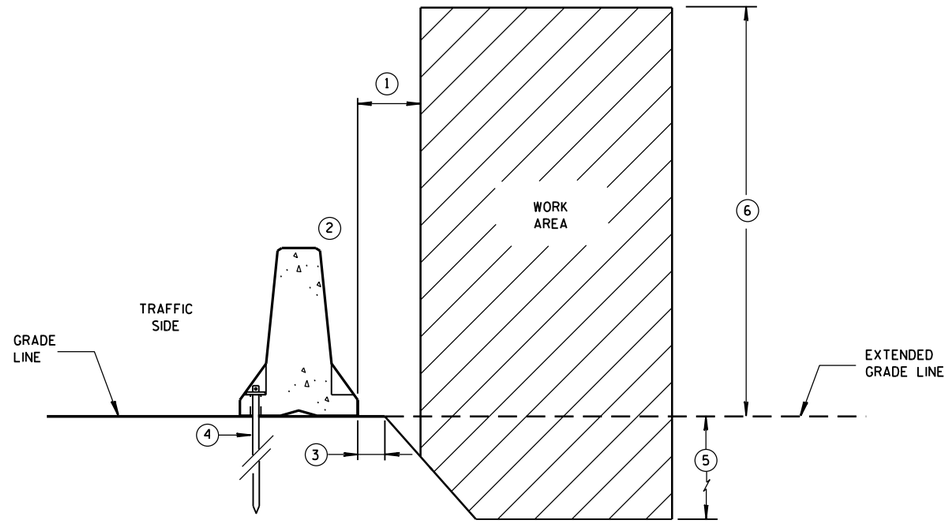
GENERAL NOTES

1. WHEN OBJECTS EXTEND ABOVE THE GRADE, A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT. SEE OTHER DETAILS FOR FOR THE MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR VERTICAL DROPS.
2. OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR LEANED AGAINST THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.
3. SEE OTHER DETAIL ON SHEET "D" FOR SPACE REQUIREMENTS.
4. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR A STAKE DOWN FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.
5. DEPTH OF 3 FEET OR MORE.
6. Y = 6'-6".

POSTED SPEED MPH	X
45 OR GREATER	4'
40 OR LESS	2'



FREE STANDING BARRIER SPACE REQUIREMENTS



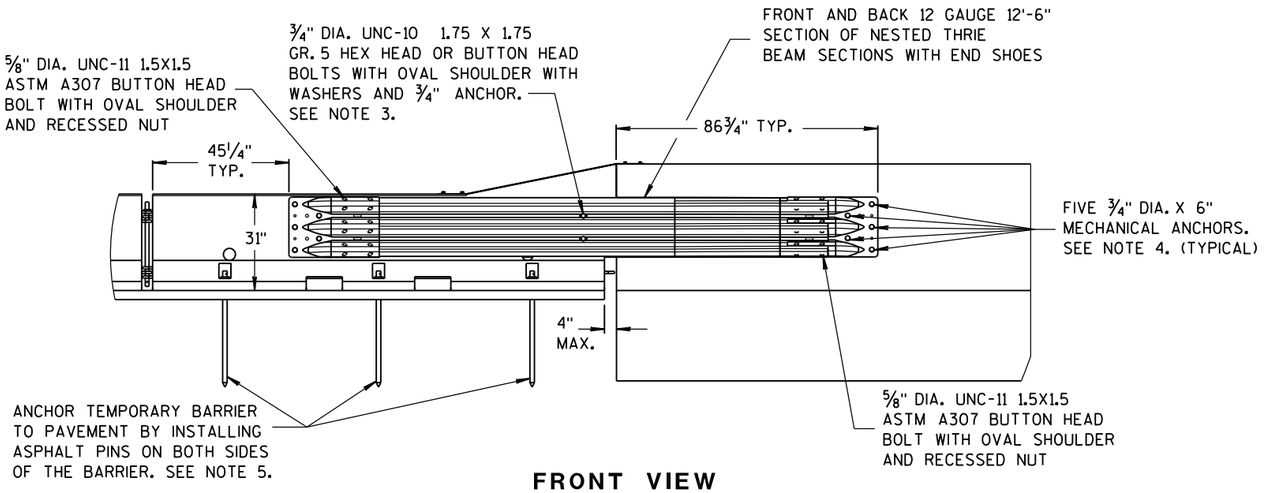
ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

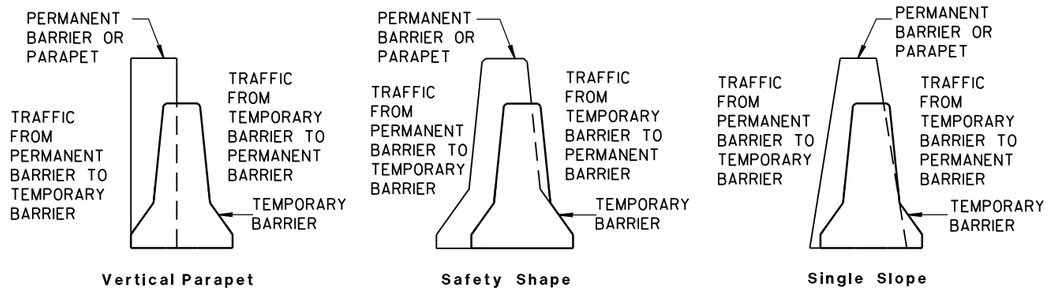
STATE OF WISCONSIN
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FRONT VIEW

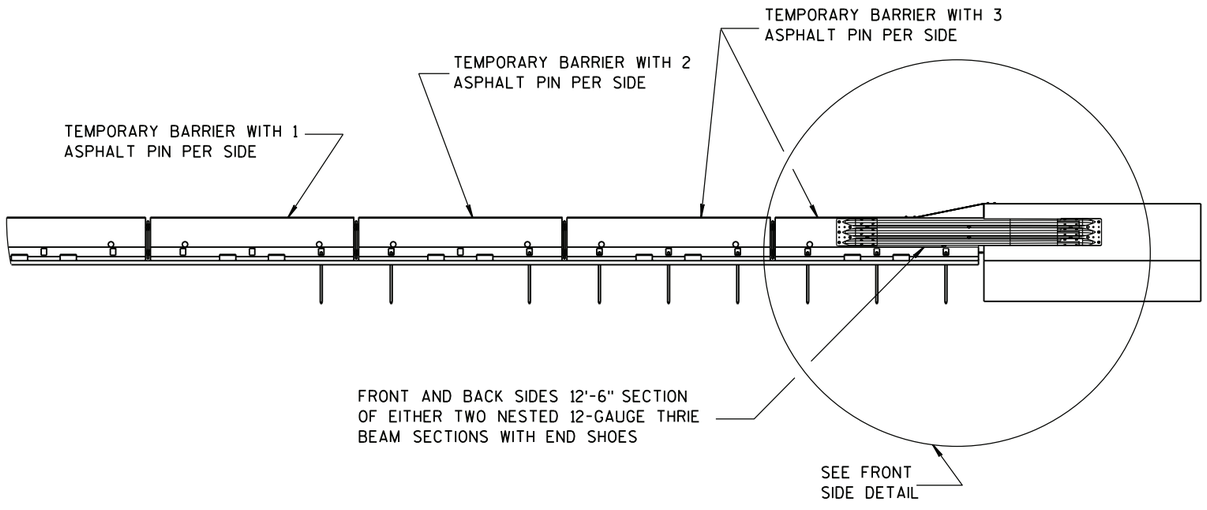


TEMPORARY BARRIER PLACEMENT FOR TRANSITION TO TIED DOWN SYSTEM

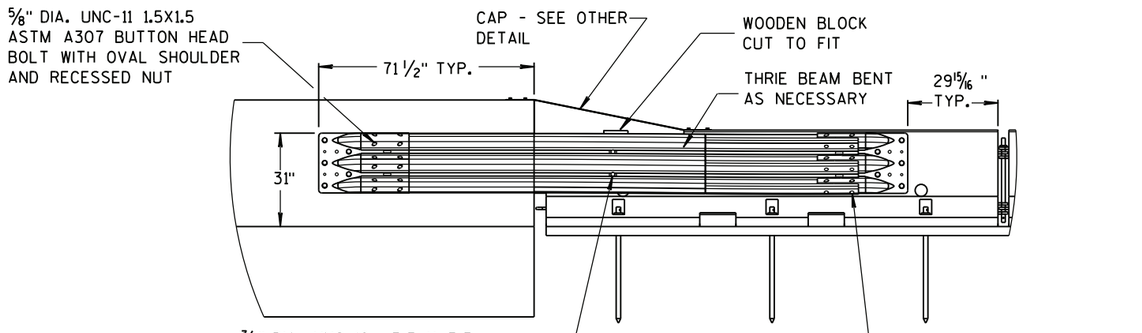
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS REGARDLESS OF TRAFFIC.

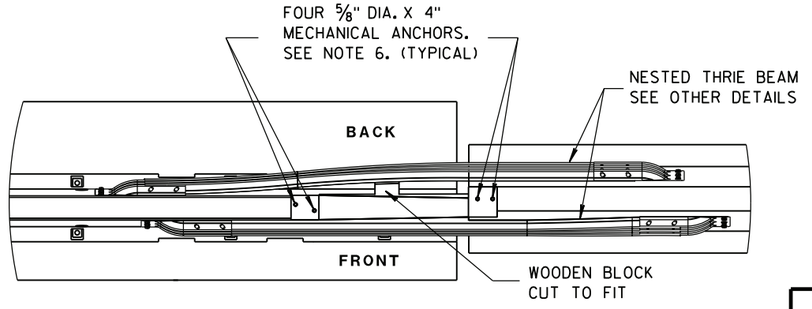
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



FRONT VIEW



BACK VIEW



PLAN VIEW

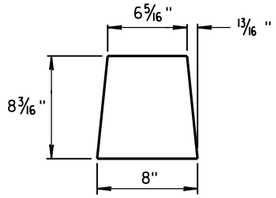
TRANSITION TO TIED DOWN SYSTEM

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

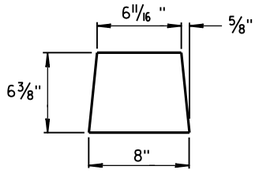
STATE OF WISCONSIN
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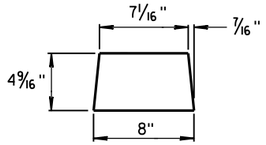
S.D.D. 14 B 7-15f



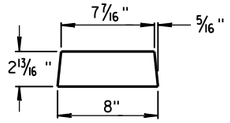
GUSSET 1



GUSSET 2

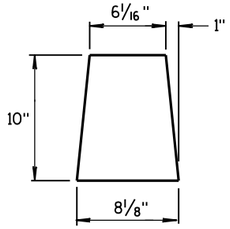


GUSSET 3

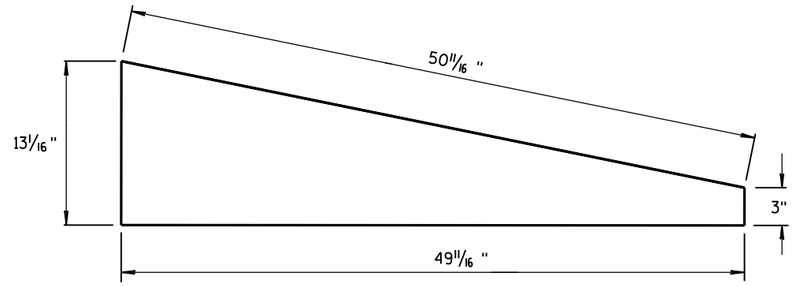


GUSSET 4

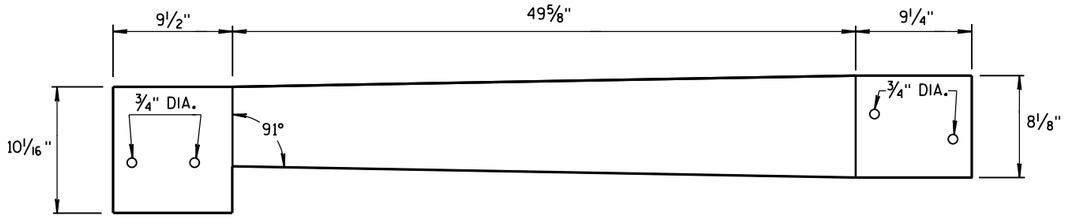
GUSSETS

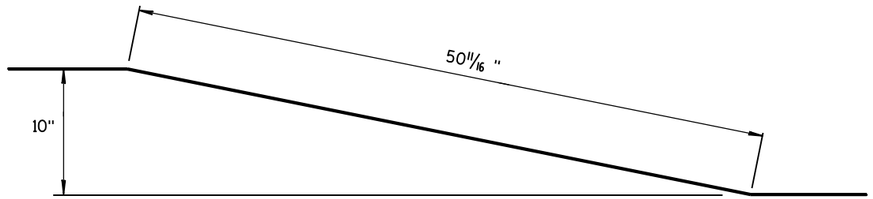


END PLATE



SIDE PLATE

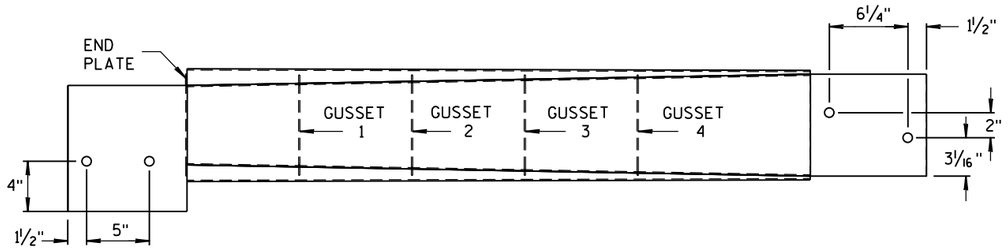


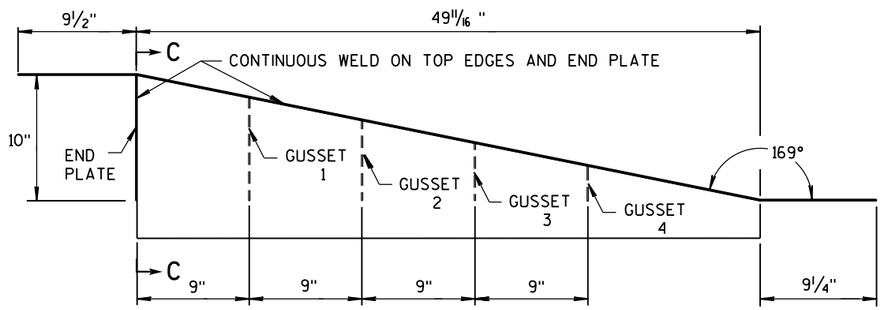


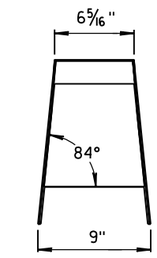
TOP PLATE

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.







SECTION C-C

NOTES

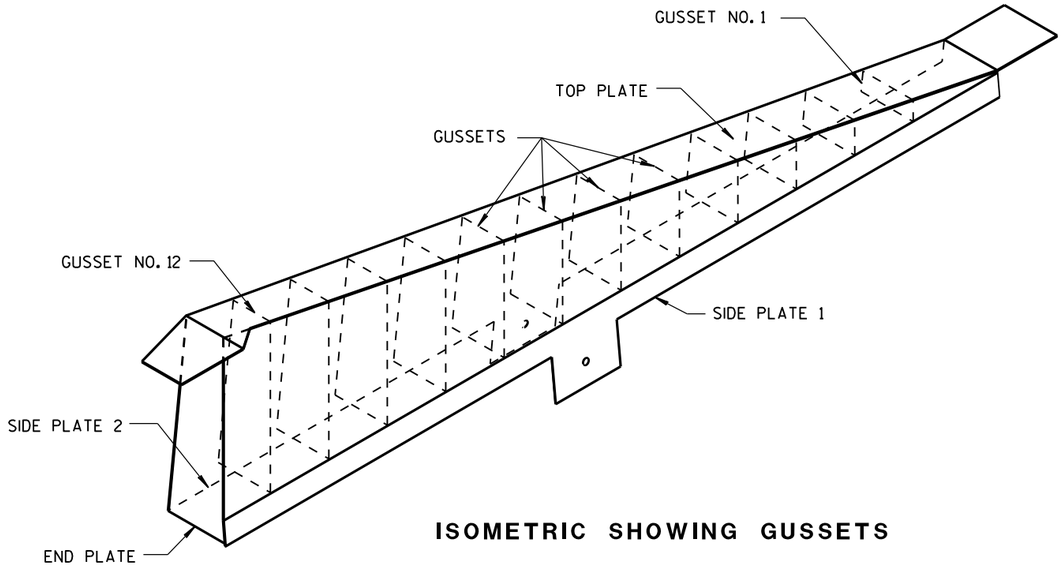
1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

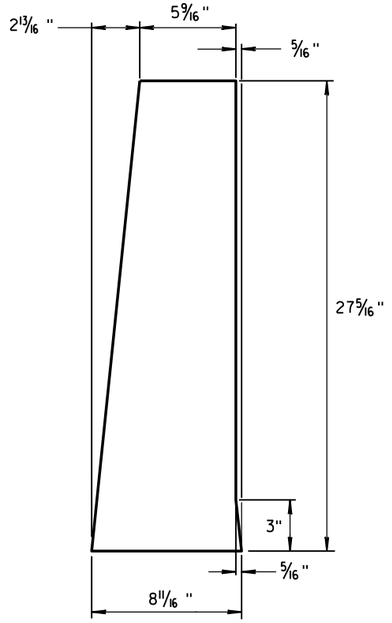
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

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DEPARTMENT OF TRANSPOI

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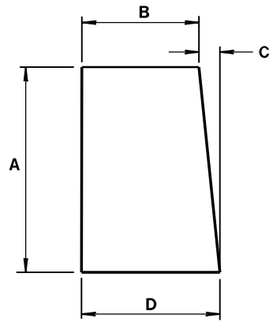


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



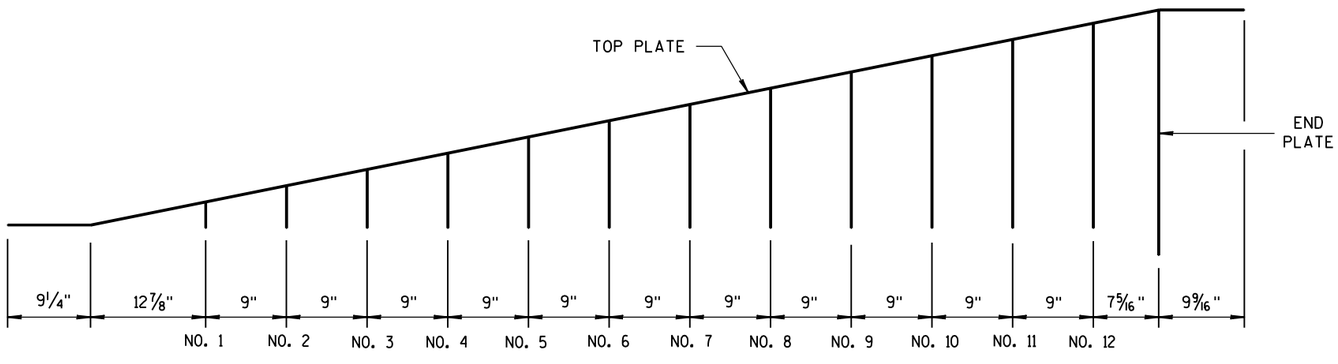
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

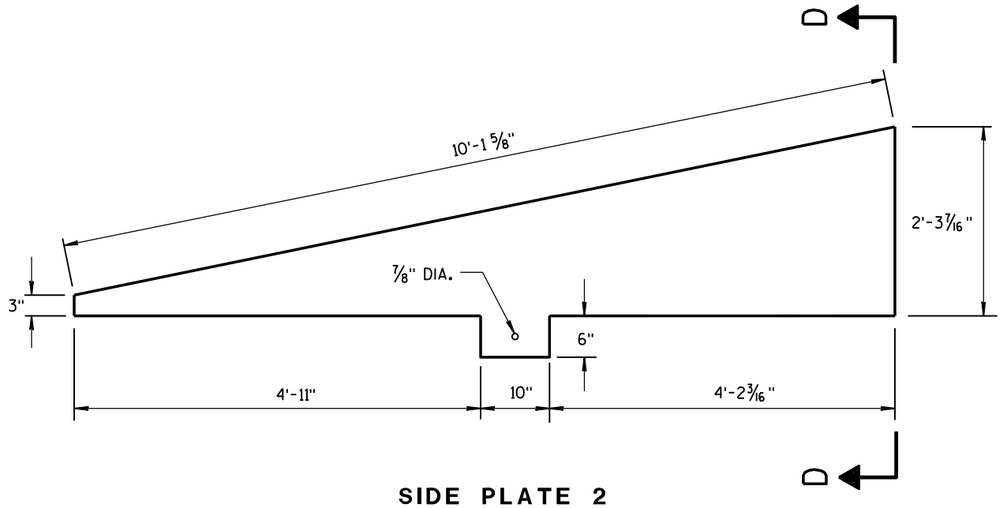
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

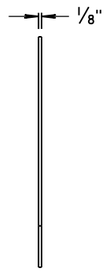
STATE OF WISCONSIN
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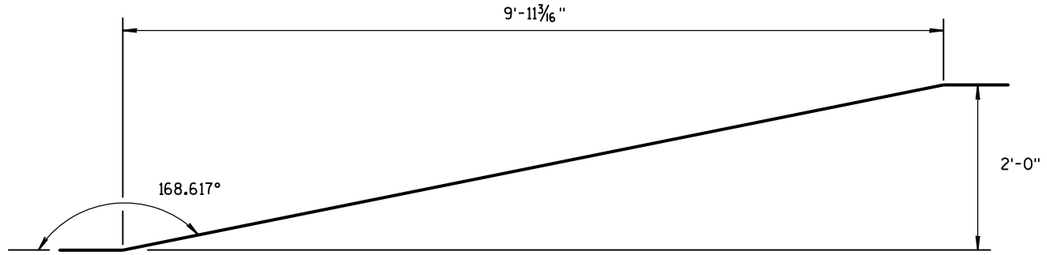
S.D.D. 14 B 7-15h



SIDE PLATE 2

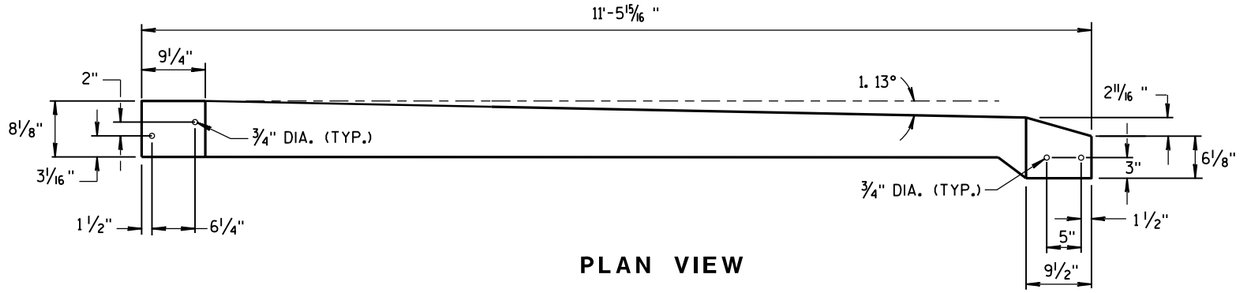


END VIEW



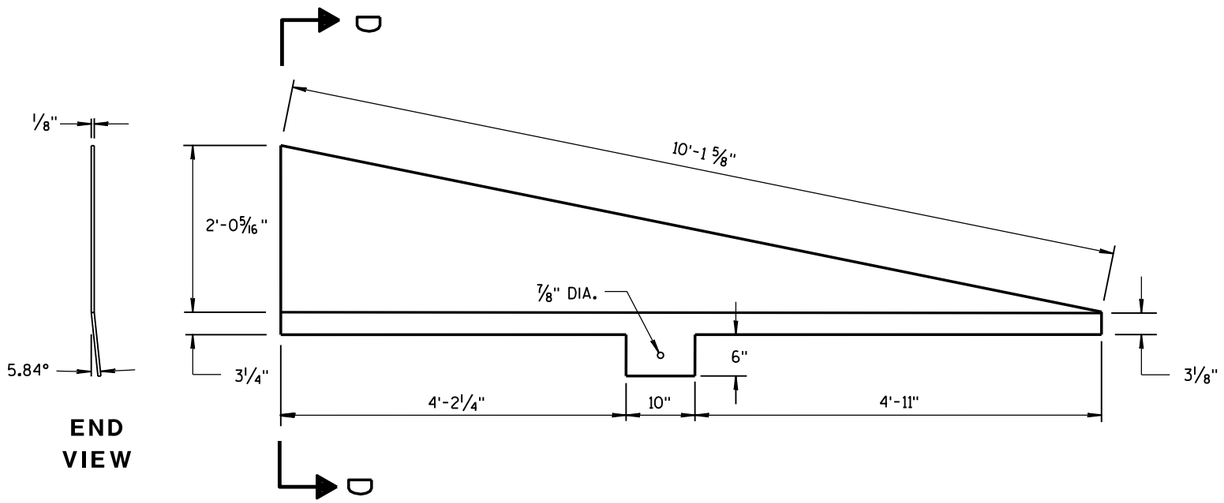
SIDE VIEW

TOP PLATE



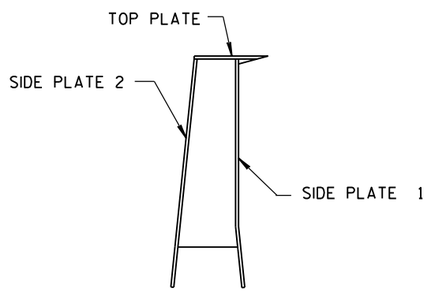
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

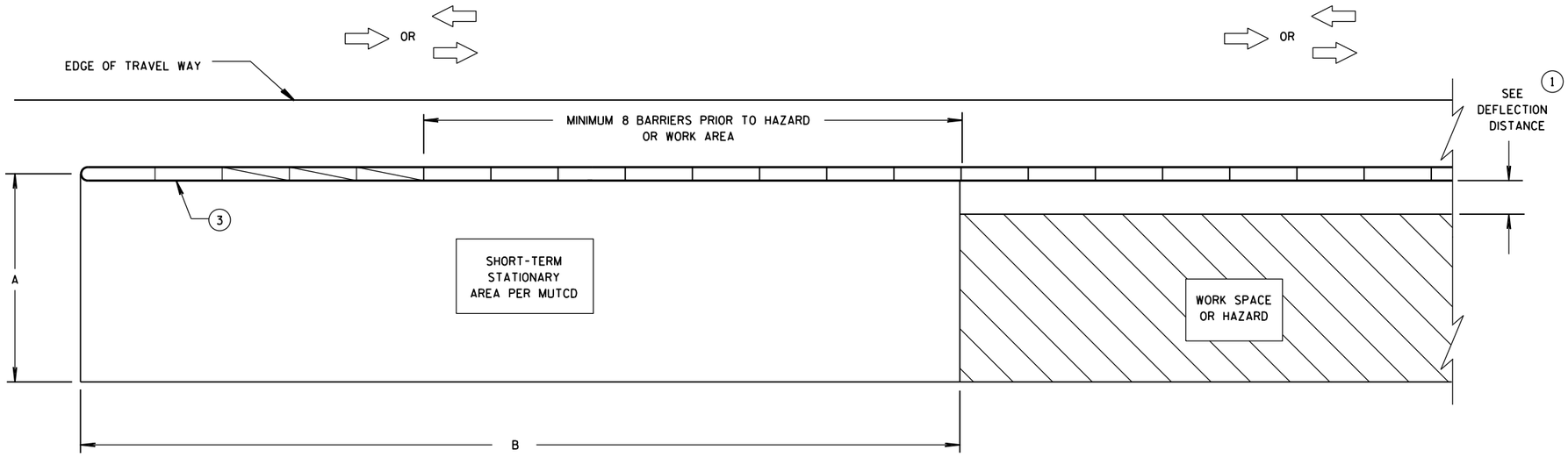
APPROVED
June 2017
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV
95
ENT
FHWA

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S.D.D. 14 B 7-15i

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S.D.D. 14 B 7-15i



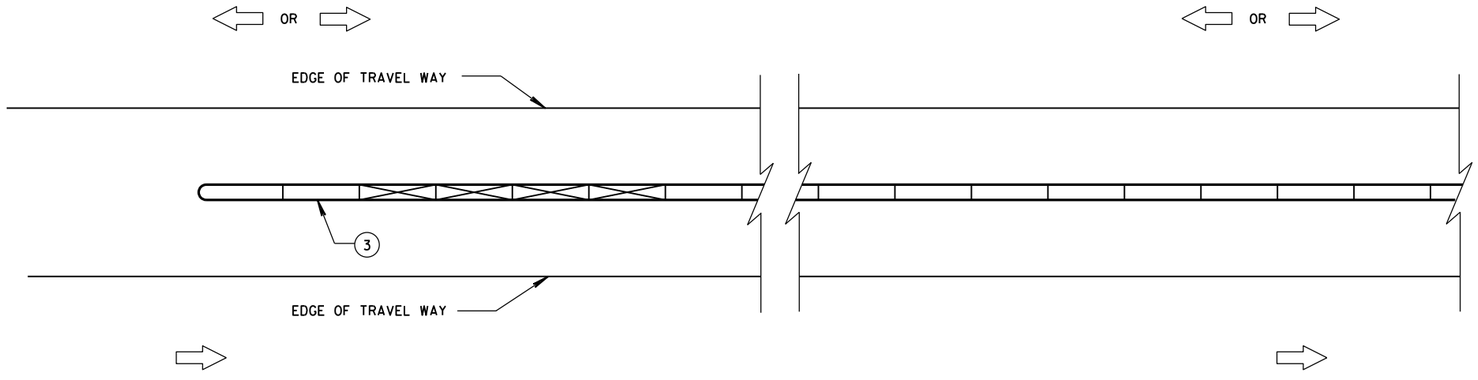
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

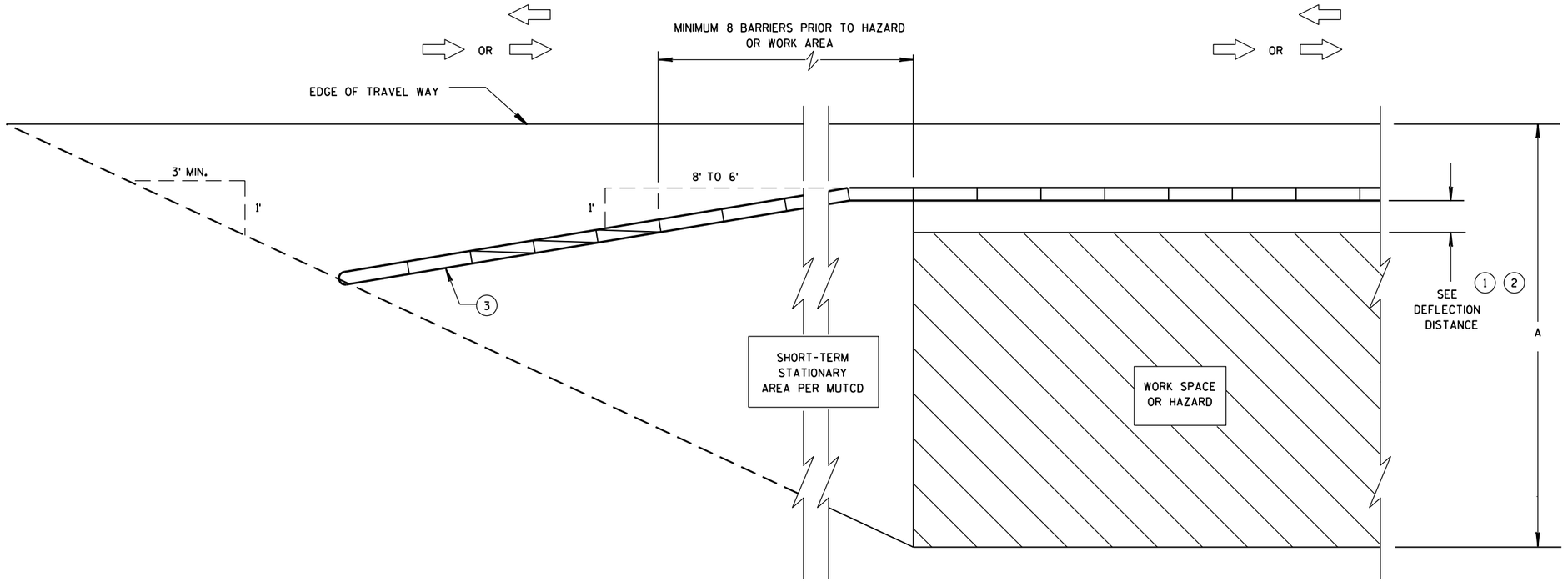
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

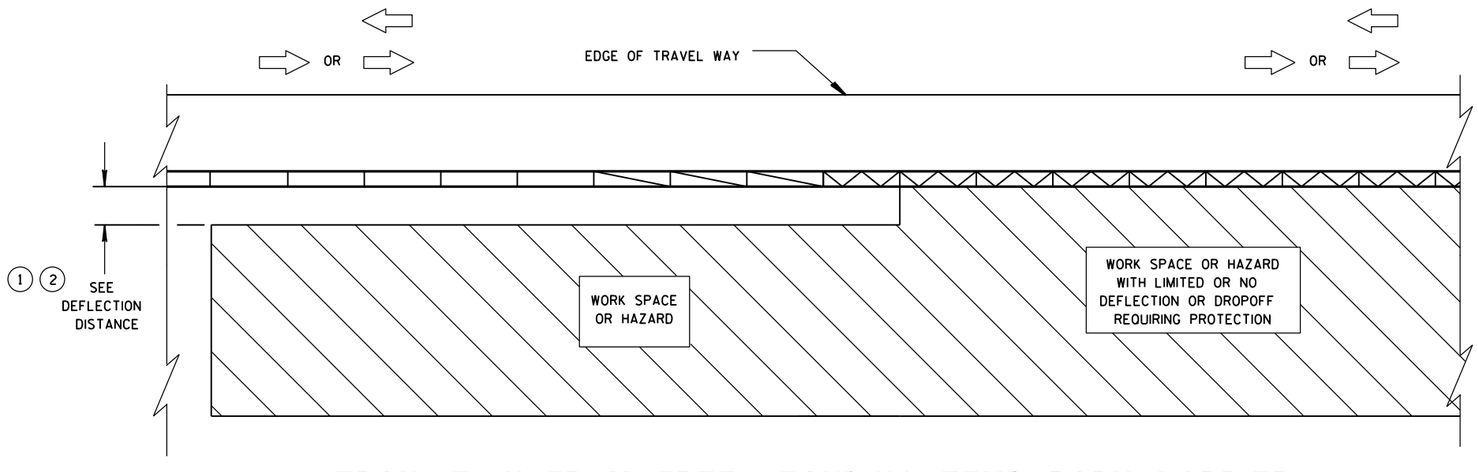
STATE OF WISCONSIN
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CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

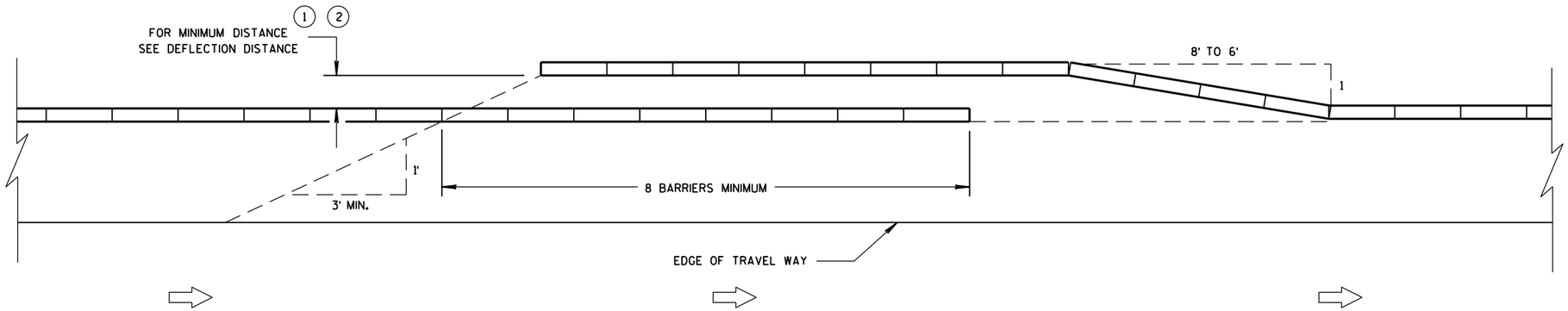
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

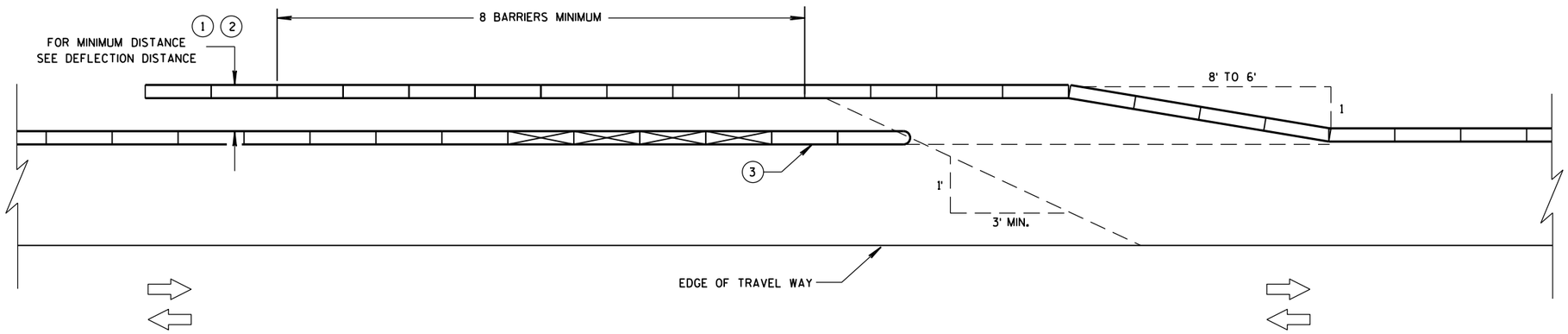
STATE OF WISCONSIN
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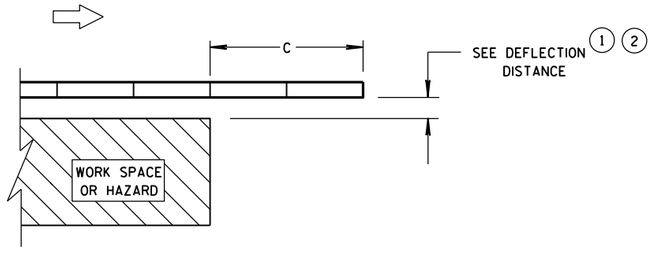
S.D.D. 14 B 8-2b



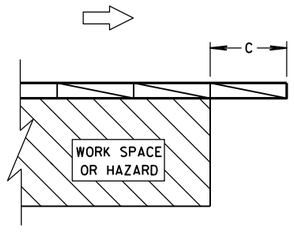
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

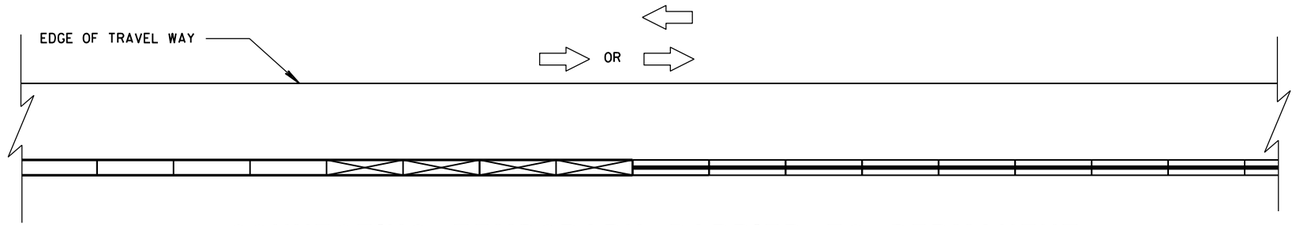
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

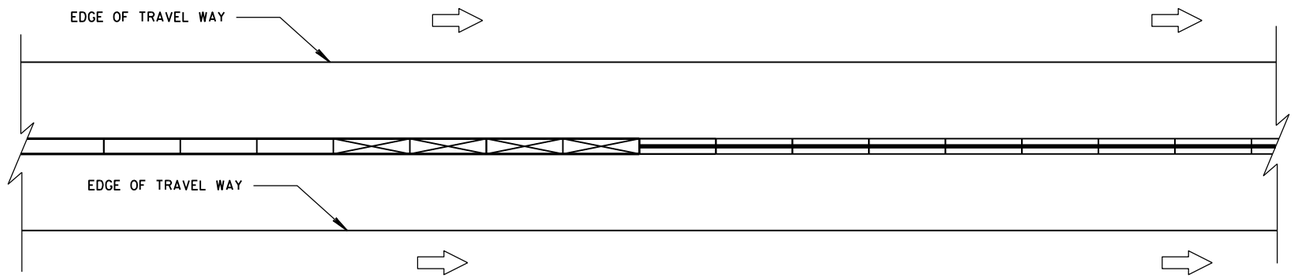
STATE OF WISCONSIN
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CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

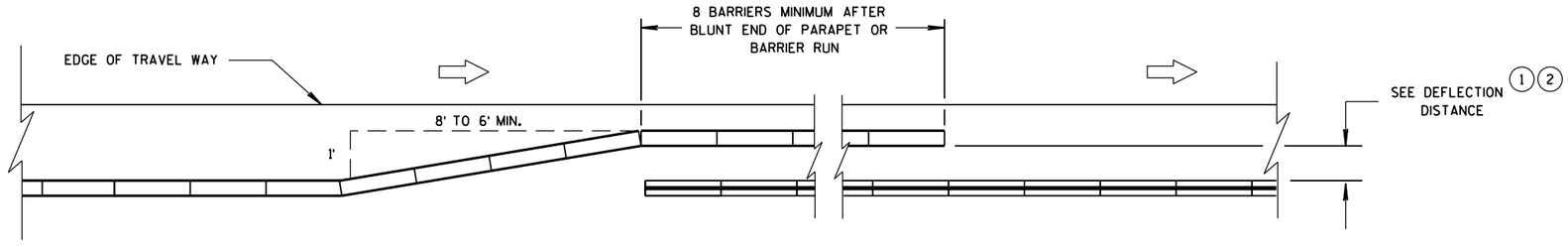
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

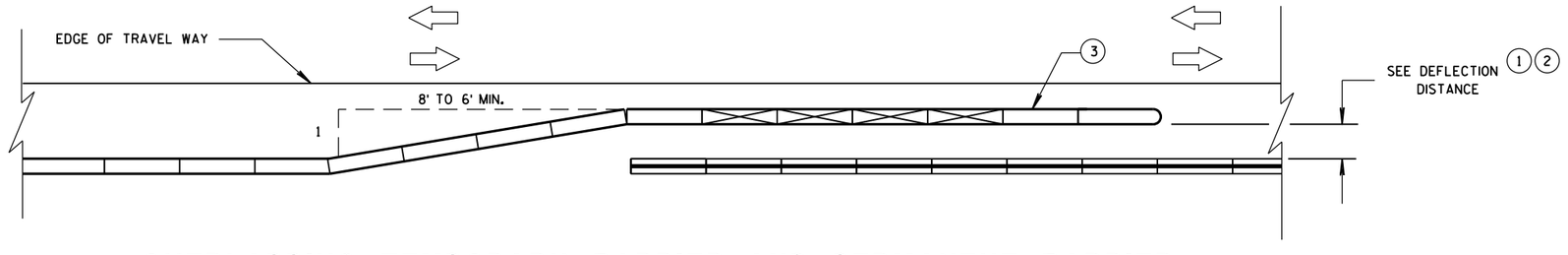
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

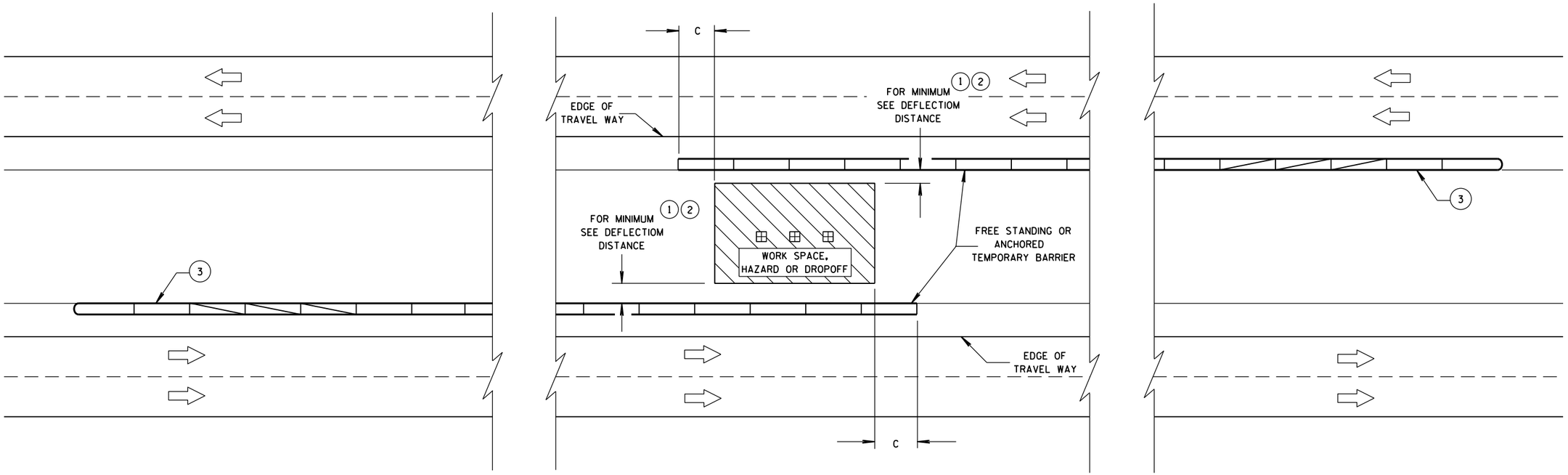
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



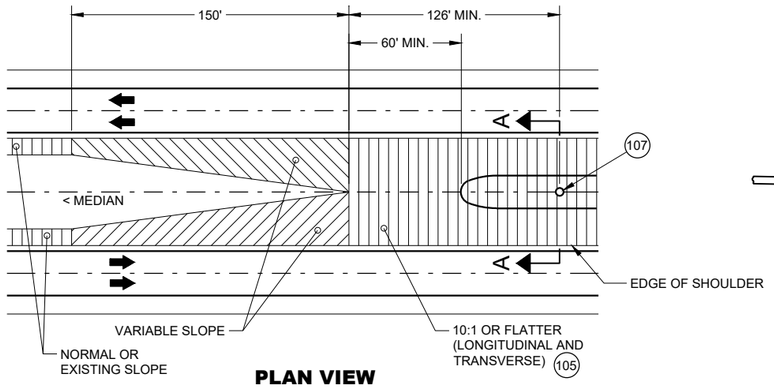
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

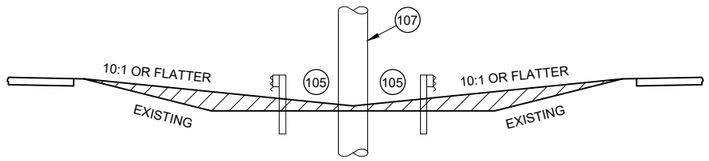
APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER
FHWA

6

S.D.D. 14 B 8-2e



PLAN VIEW
GRADING AT BULLNOSE
(ALL INSTALLATIONS)



SECTION A -A
MEDIAN GRADING
(ALL INSTALLATIONS)

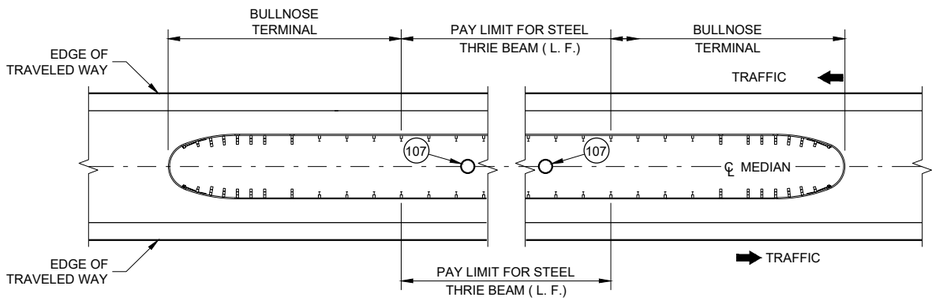
GENERAL NOTES

THRIE BEAM RAILS MAY NEED TO BE FIELD BENT TO FIT THE LOCATION.

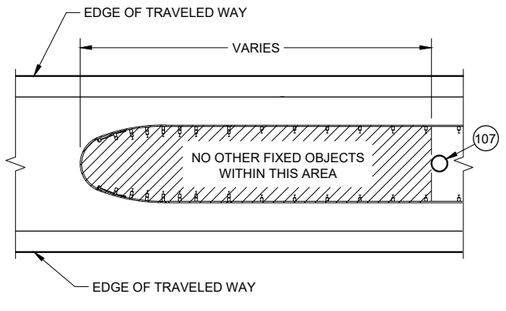
SEE STANDARD DETAIL DRAWINGS 14B26 SHEETS a-h.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 ½". MINIMUM DIAMETER OF THE ROCK REMOVAL IS 12" DIAMETER

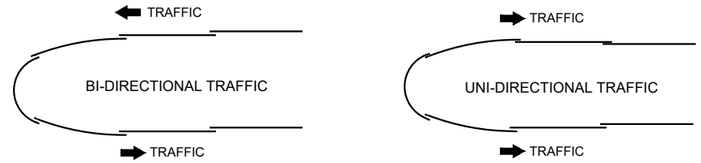
- E1 UNBENT STANDARD THRIE BEAM RAIL B1 (POST 8 TO POST 10 AND POST 10 TO POST 12)
- E2 SLOTTED THRIE BEAM RAIL E1 (POST 1 TO POST 1)
- E3 SLOTTED THRIE BEAM RAIL B3 (POST 5 TO POST 8)
- E4 SLOTTED THRIE BEAM RAIL E4 (POST 1 TO POST 5)
- 5 BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.
- (100) DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.
- (101) U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.
- (102) NOSE CABLE WITH SWAGGED END BUTTONS.
- (103) NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).
- (104) THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.
- (105) MINIMUM WORKING WIDTH 4' - 2".
- (106) MAX. WIDTH OF SYSTEM IS 14' - 2 ½" MEASURED FROM THE BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.
- (107) FIXED OBJECT OR OTHER HAZARD.
- (108) PLAN IS TO PROVIDE STATION OFFSET TO CENTER OF POST 5 IN PLANS.



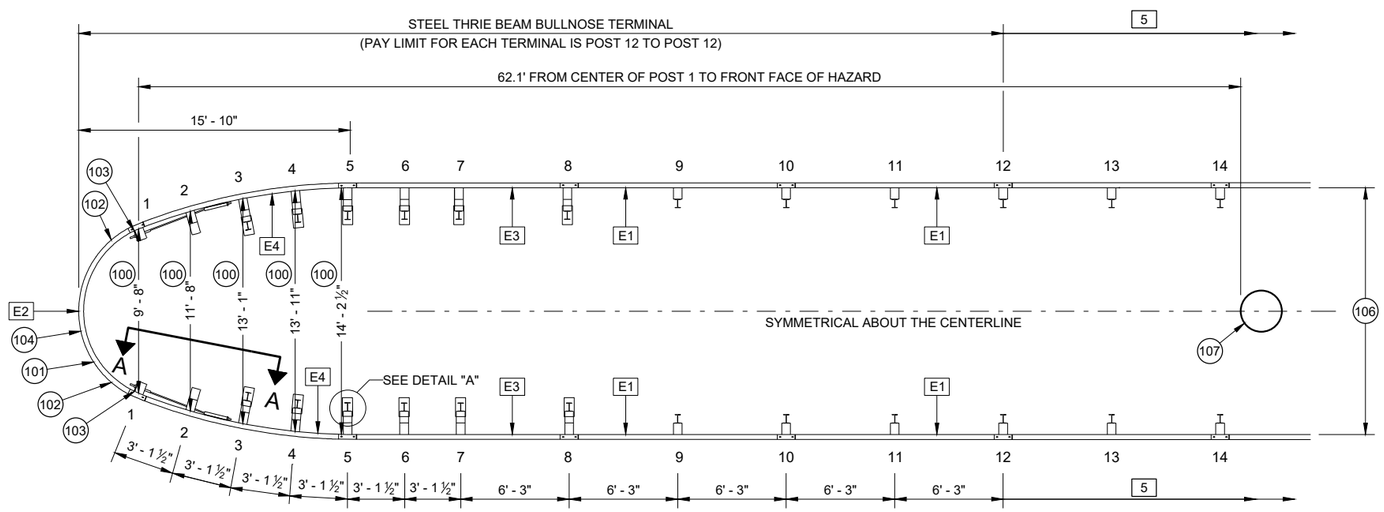
MEDIAN HAZARD PROTECTION PAY LIMITS



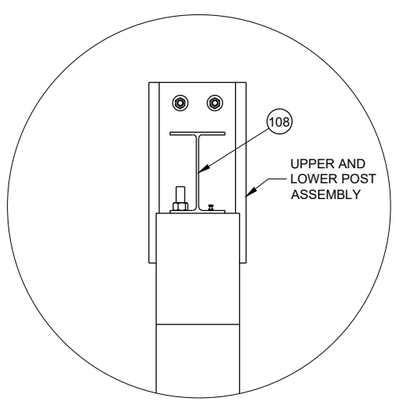
HAZARD FREE AREA
INSIDE BULLNOSE



LAPPING DETAIL



PLAN VIEW
TYPICAL BULLNOSE LAYOUT



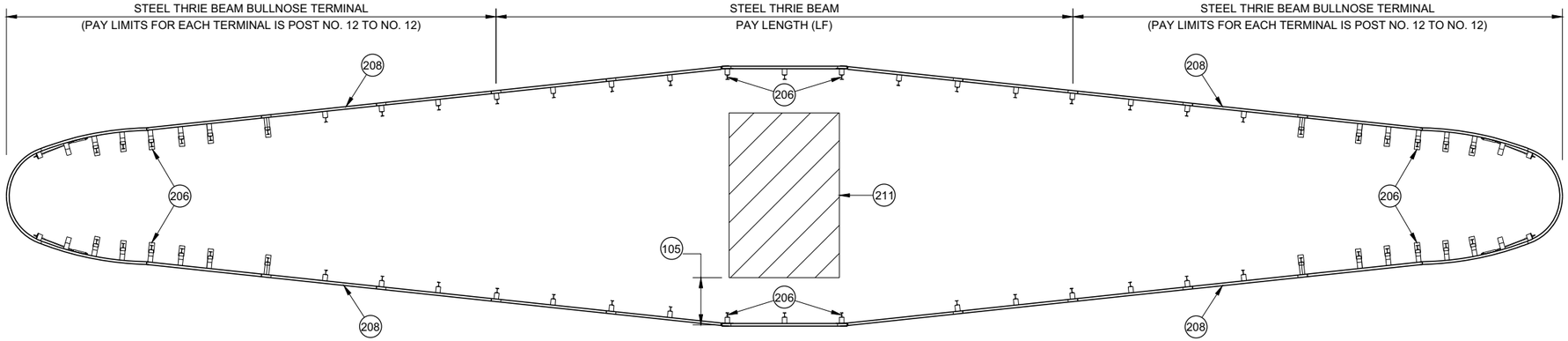
DETAIL "A"

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B26 - 04a

SDD 14B26 - 04a



VARIABLE WIDTH BULLNOSE

GENERAL NOTES

200 6' - 3" ASYMMETRICAL 10-GAUGE W-BEAM TO THRIE BEAM GUARD TRANSITION. SEE SDD 14B45 FOR MORE INFORMATION.

201 W-BEAM RAIL. SEE SDD 14B42 FOR MORE INFORMATION.

202 SEE POST NO. 9 AND ALL STEEL THRIE BEAM POST BEYOND DETAIL.

203 SEE SDD 14B42 FOR INSTALLATION INFORMATION.

204 SEE SDD 14B45 FOR INSTALLATION DETAILS. REPLACE ASYMMETRICAL W-BEAM TO THRIE BEAM TRANSITION AND W-BEAM RAIL WITH E1. PAY FOR MODIFIED THRIE BEAM TRANSITION.

205 CONCRETE BARRIER OR BRIDGE RAIL.

206 SEE PLAN FOR STATION AND OFFSET TO CENTER OF POST.

207 SEE PLAN FOR STATION AND OFFSET TO CENTER OF SPLICE.

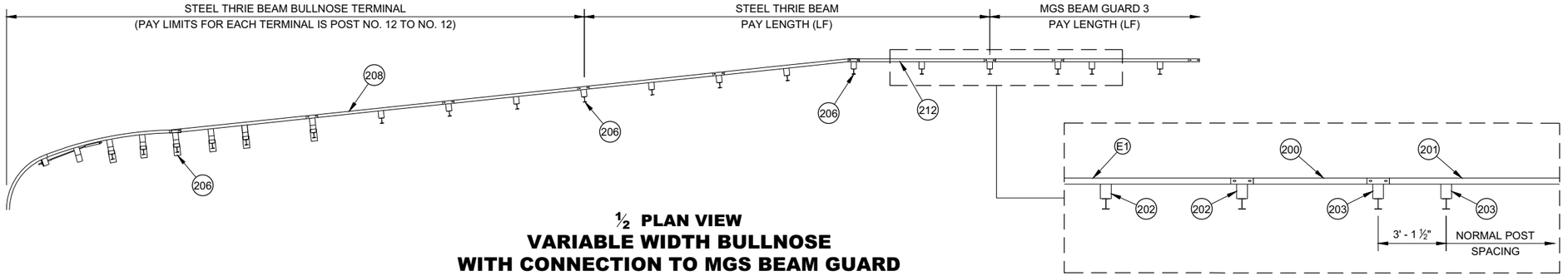
208 SEE PLAN FOR FLARE RATE.

209 A MINIMUM OF 25 FT OF THRIE BEAM TANGENT BEFORE TRANSITIONING TO BEAM GUARD OR THRIE BEAM TRANSITION.

210 NOT ALL BULLNOSE HARDWARE SHOWN. SEE OTHER SHEETS IN 14B26.

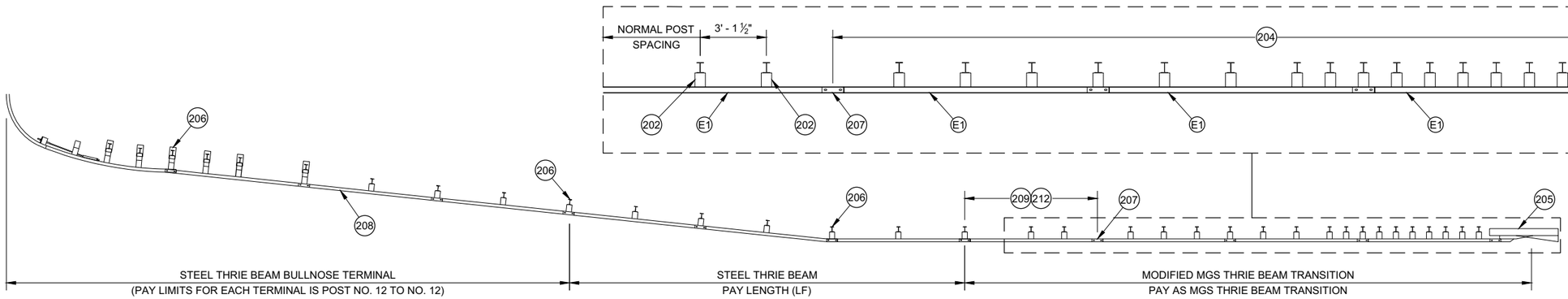
211 WIDER HAZARD TO BE SHIELDED.

212 TRANSITION RAIL HEIGHT TO 31" OVER THE LENGTH OF A 12' - 6" BEAM SECTION.



½ PLAN VIEW

VARIABLE WIDTH BULLNOSE WITH CONNECTION TO MGS BEAM GUARD



½ PLAN VIEW

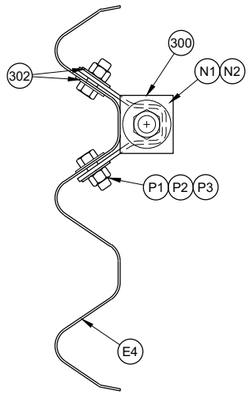
VARIABLE WIDTH BULLNOSE WITH CONNECTION TO RIGID BARRIER

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

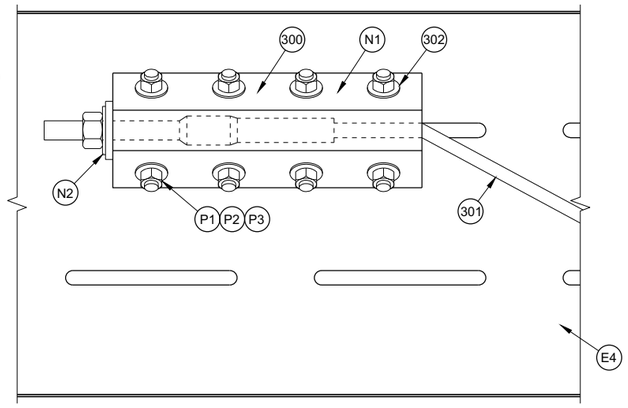
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SDD 14B26 - 04b

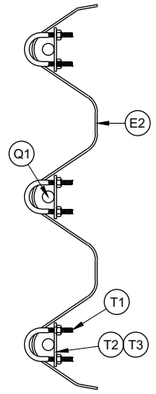


PROFILE VIEW

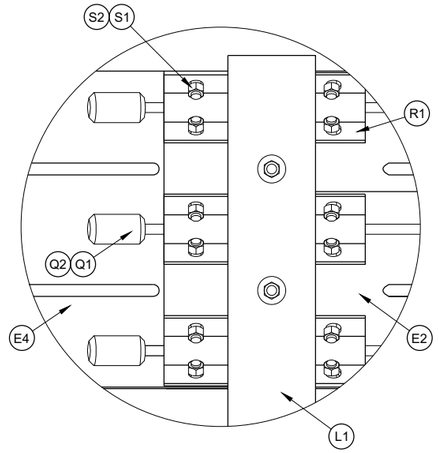
CABLE ANCHOR ASSEMBLY CONNECTION



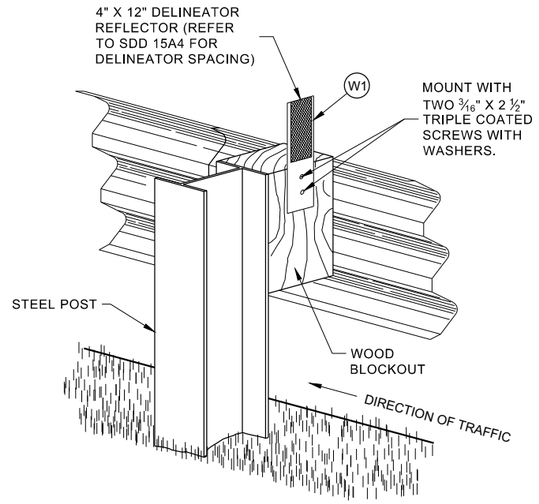
CABLE ANCHOR ASSEMBLY



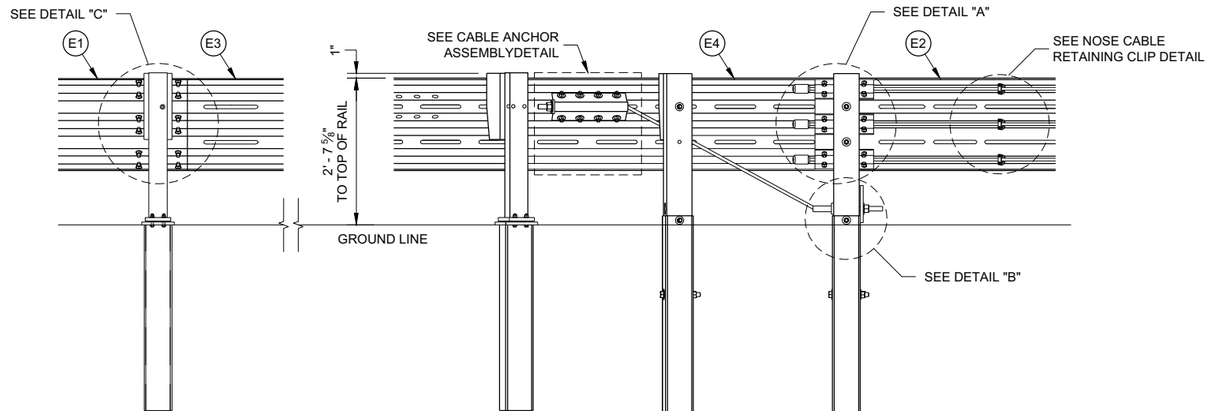
NOSE CABLE RETAINING CLIP



DETAIL "A"

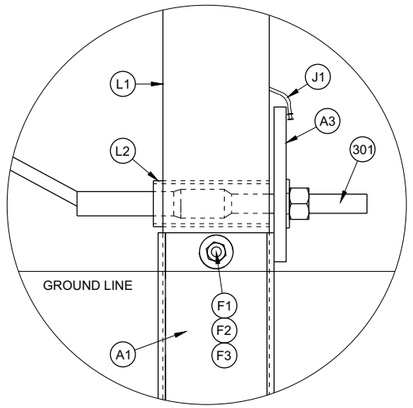


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

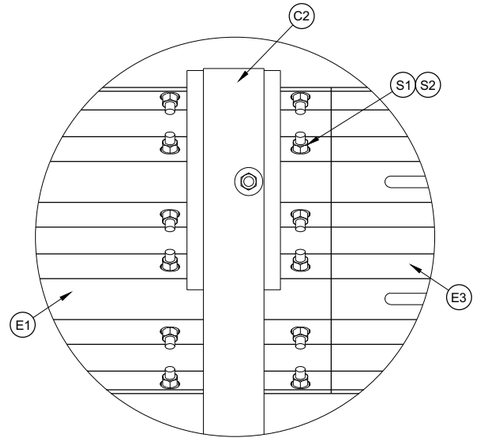


POST 8 **POST 3** **POST 2** **POST 1**

CROSS SECTION A - A



DETAIL "B"



DETAIL "C" THRIE BEAM SPLICE

GENERAL NOTES

(300) SEE ANCHOR BRACKET ASSEMBLY DETAIL.

(301) SEE ANCHOR CABLE ASSEMBLY DETAIL

(302) ONE WASHER BETWEEN BOLT HEAD AND RAIL AND BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

(303) ONE WASHER BETWEEN BOLD HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

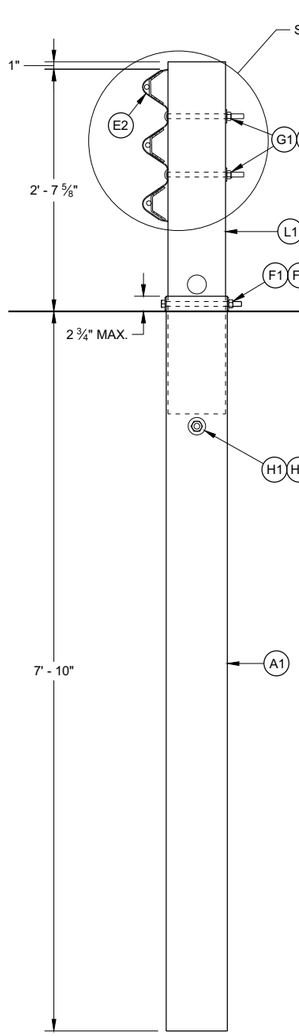
STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

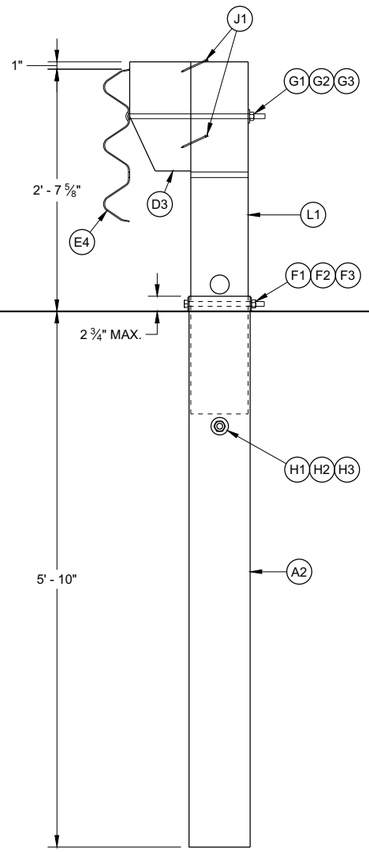
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SDD 14B26 - 04c

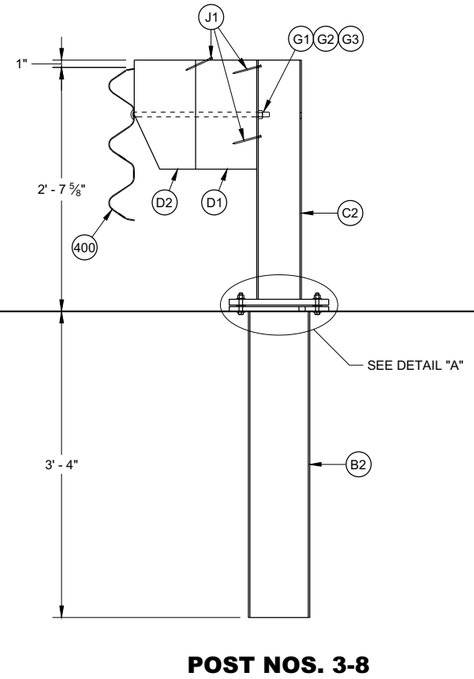
SDD 14B26 - 04c



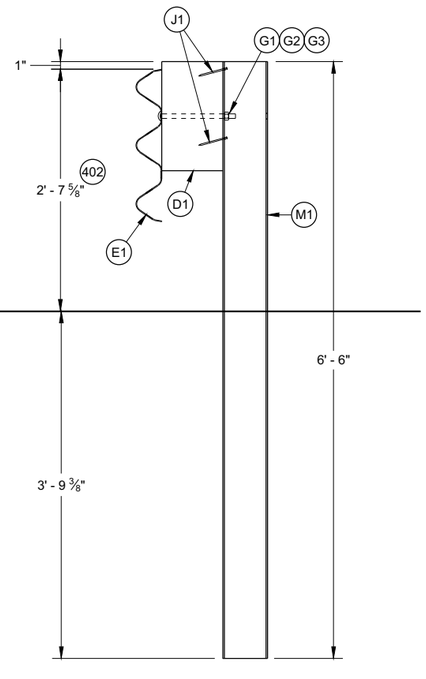
POST NO. 1



POST NO. 2



POST NOS. 3-8



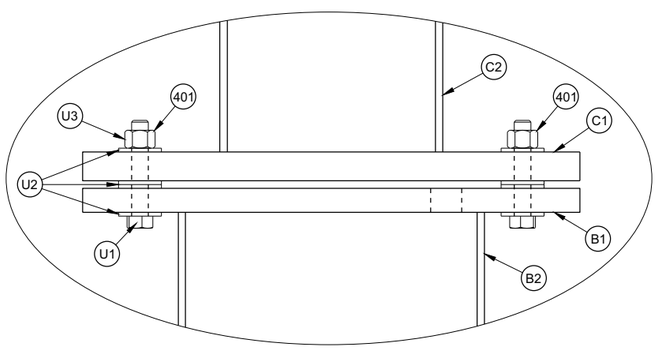
POST NOS. 9 AND ALL STEEL THRIE BEAM POSTS BEYOND

GENERAL NOTES

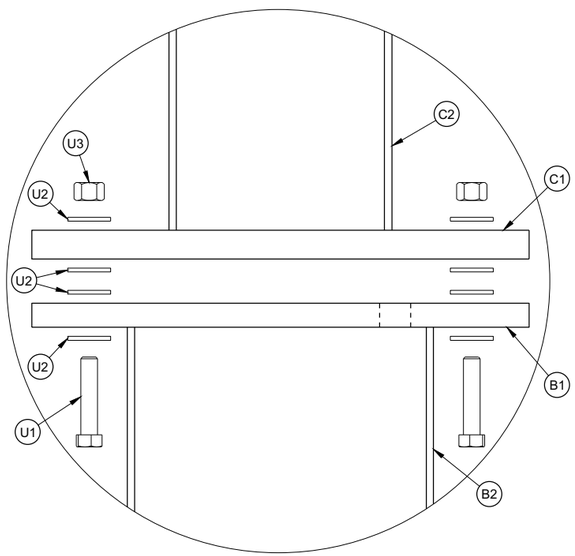
400 RAIL CAN BE E3 OR E4 DEPENDING ON POST LOCATION.

401 TORQUE BOLD BETWEEN 60-75 FT-LB

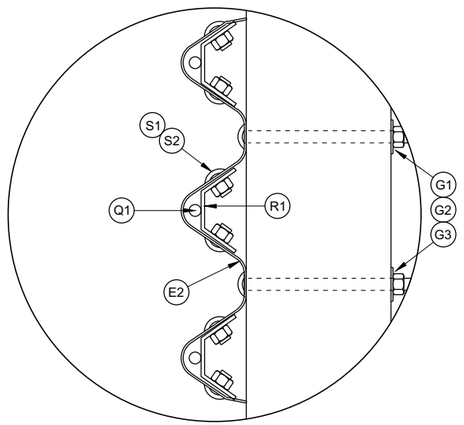
402 HEIGHT WILL VARY WITHIN HEIGHT TRANSITION TO OTHER HARDWARE. SEE NOTE 213, SHEET "b".



DETAIL "A"



EXPLODED VIEW
DETAIL "A"



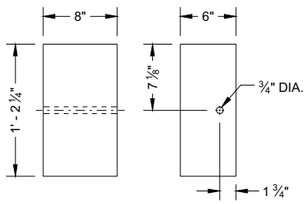
DETAIL "B"

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

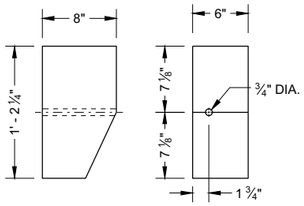
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SDD 14B26 - 04d



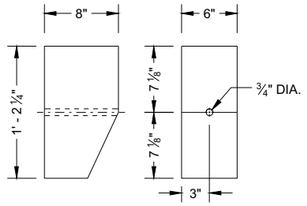
ELEVATION PROFILE

BLOCKOUT (D1)



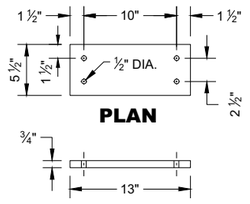
ELEVATION PROFILE

BLOCKOUT (D2)



ELEVATION PROFILE

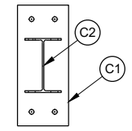
BLOCKOUT (D3)



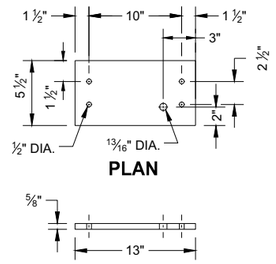
PLAN

PROFILE

UPPER SHEAR PLATE (C1)



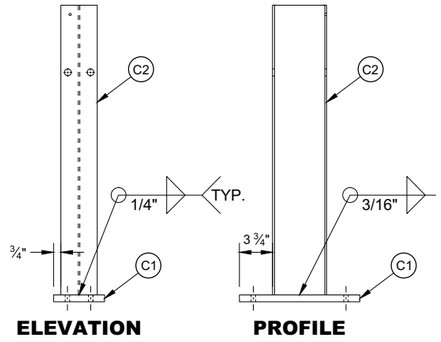
PLAN



PLAN

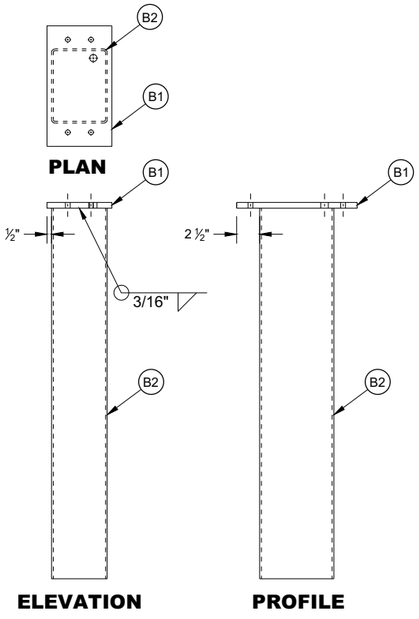
PROFILE

LOWER SHEAR PLATE (B1)



ELEVATION PROFILE

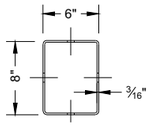
UPPER POST ASSEMBLY



PLAN

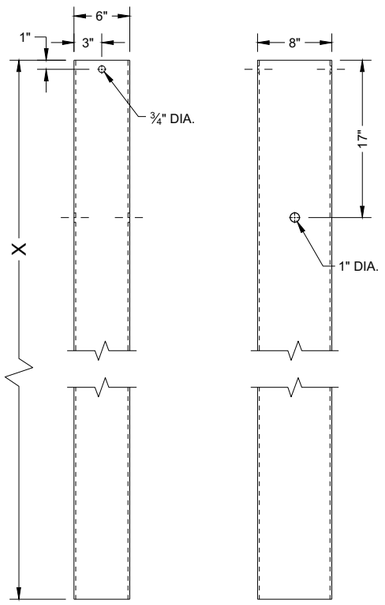
ELEVATION PROFILE

LOWER POST ASSEMBLY



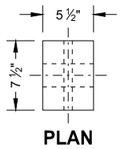
PLAN

PART	LENGTH "X"
A1	8' - 0"
A2	6' - 0"
B2	3' - 6"

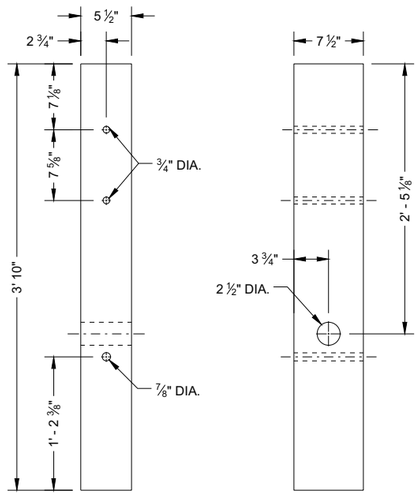


ELEVATION PROFILE

FOUNDATION TUBE

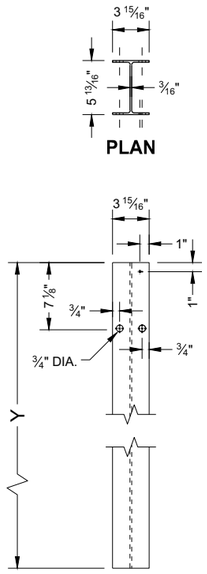


PLAN



ELEVATION PROFILE

BCT POST (L1)



PLAN

ELEVATION

POST

PART	LENGTH "Y"
M1	6' - 6"
M2	5' - 8 5/8"
C2	2' - 8 5/8"

STEEL THRIE BEAM BULLNOSE TERMINAL

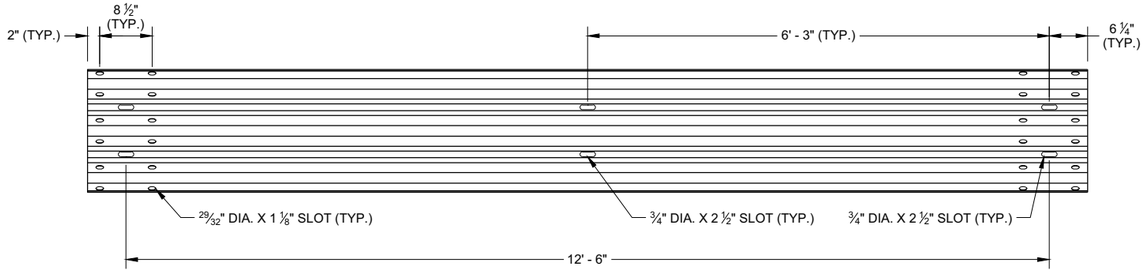
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTAT

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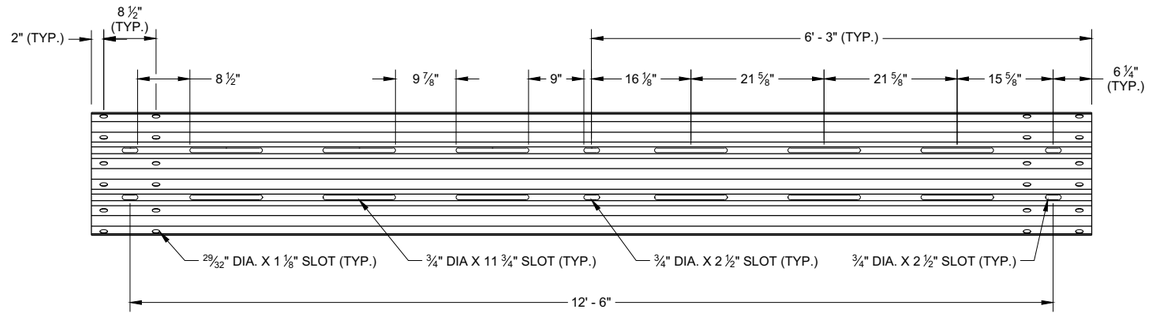
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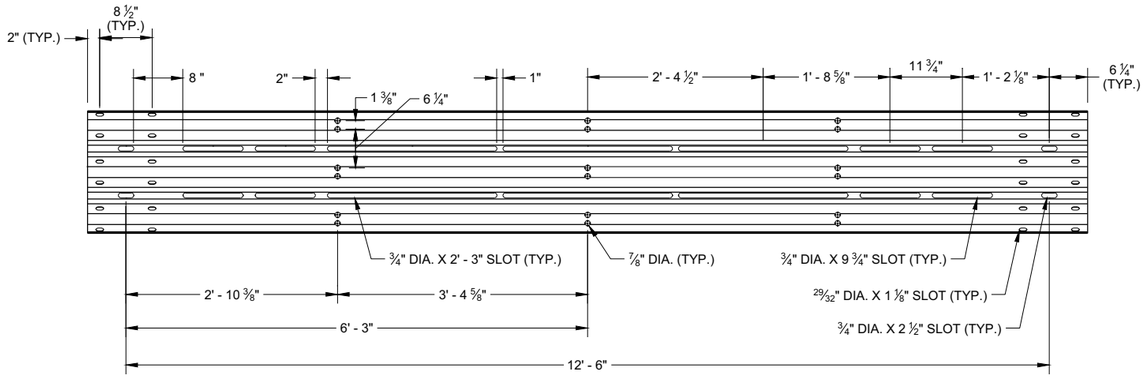
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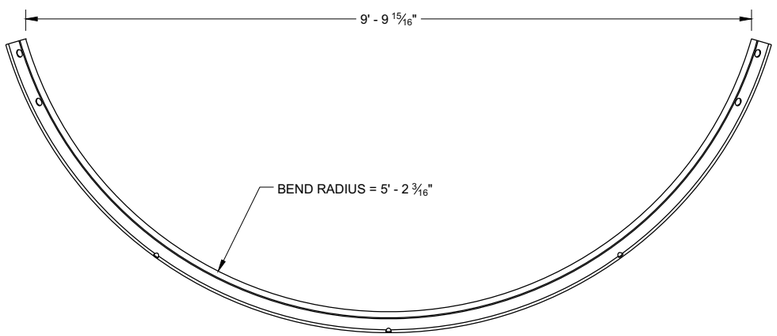
SLOTTED THRIE BEAM RAIL E1



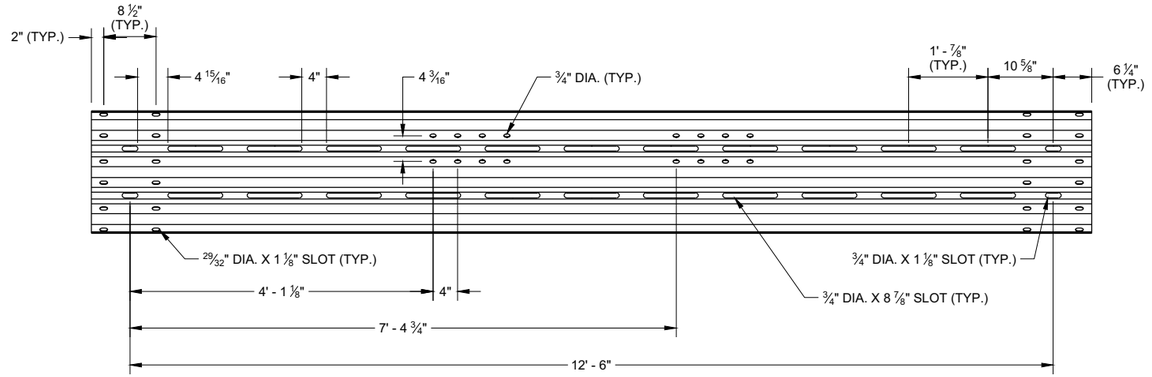
SLOTTED THRIE BEAM RAIL E3



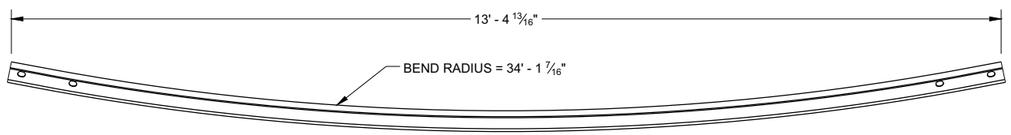
ELEVATION VIEW NON - RADIUSED
SLOTTED THRIE BEAM RAIL E2



PLAN VIEW
SLOTTED THRIE BEAM RAIL E2



ELEVATION VIEW NON - RADIUSED
SLOTTED THRIE BEAM RAIL E4



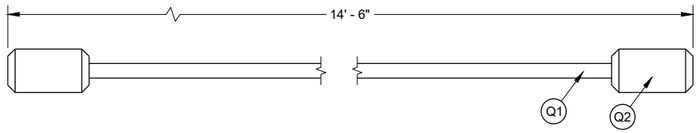
PLAN VIEW
SLOTTED THRIE BEAM RAIL E4

STEEL THRIE BEAM
BULLNOSE TERMINAL

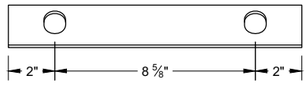
STATE OF WISCONSIN
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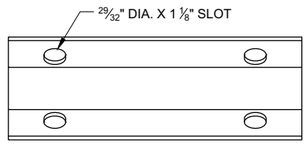
SDD 14B26 - 04f



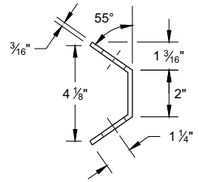
NOSE CABLE AND SWAGE BUTTON



PLAN VIEW

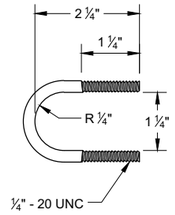


ELEVATION VIEW

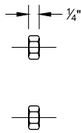


PROFILE VIEW

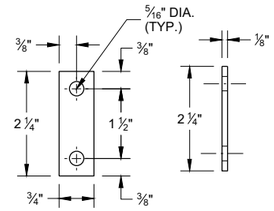
NOSE CABLE ANCHOR (R1)



U - BOLT (T1)

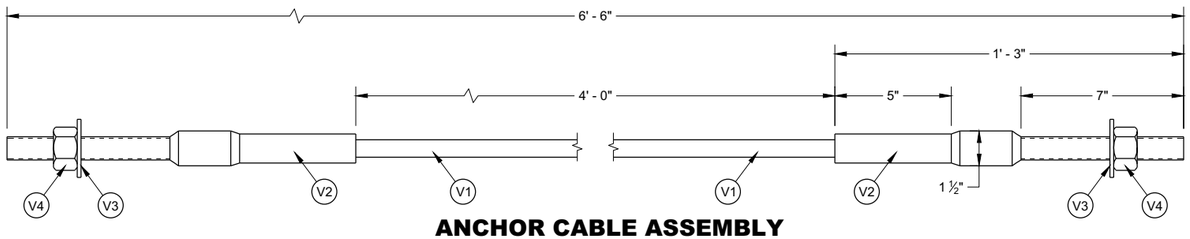


U - BOLT NUT (T3)

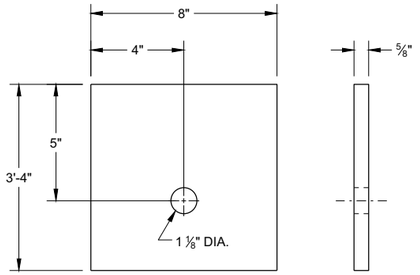


ELEVATION VIEW **PROFILE VIEW**

U - BOLT PLATE WASHER (T2)

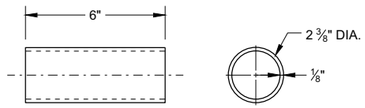


ANCHOR CABLE ASSEMBLY



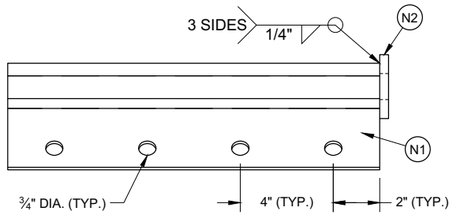
ELEVATION VIEW **PROFILE VIEW**

BCT BEARING PLATE (A3)

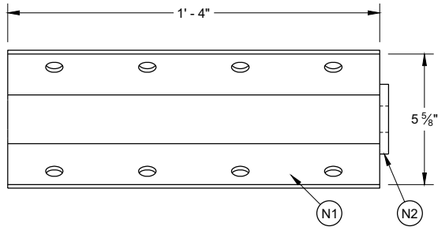


ELEVATION VIEW **PROFILE VIEW**

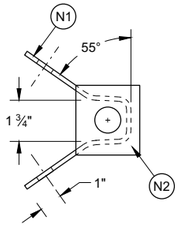
BCT POST SLEEVE (L2)



PLAN VIEW

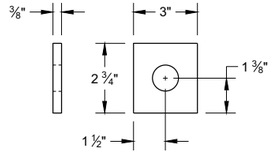


ELEVATION VIEW



PROFILE VIEW

ANCHOR BRACKET ASSEMBLY (N1)



ANCHOR BRACKET END PLATE (N2)

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B26 - 04g

BILL OF MATERIALS LIST

PART NUMBER	DESCRIPTION	MATERIAL SPECIFICATION
A1	LONG FOUNDATION TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
A2	FOUNDATION TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
A3	BEARING PLATE AT POST	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
B1	LOWER SLIP POST ASSEMBLY - PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
B2	LOWER SLIP POST ASSEMBLY - TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
C1	UPPER SLIP POST ASSEMBLY - PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
C2	UPPER SLIP POST ASSEMBLY - POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
D1	BLOCK FOR STEEL POST - WOOD	WISDOT SPEC. 614
D2	TAPERED BLOCK FOR STEEL POST - WOOD	WISDOT SPEC. 614
D3	TAPERED BLOCK FOR BCT POST - WOOD	WISDOT SPEC. 614
E1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER
E2	THRIE BEAM RAIL - SHOP BENT AND PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER. INDICATE RADIUS BEAM GUARD IS BENT TO ON THE BACKSIDE OF RAIL. FOLLOW AASHTO M180. MARK RADIUS.
E3	THRIE BEAM RAIL - PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER
E4	THRIE BEAM RAIL - SHOP BENT AND PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER. INDICATE RADIUS BEAM GUARD IS BENT TO ON THE BACKSIDE OF RAIL. FOLLOW AASHTO M180. MARK RADIUS.
F1	5/8" DIA. HEX HEAD GROUND STRUT AND YOKE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
F2	5/8" DIA. GROUND STRUT AND YOKE BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
F3	GROUND STRUT AND YOKE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
G1	5/8 " DIA. POST BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER TYPICALLY USED WITH STEEL POSTS) OR ASTM F844 (UNHARDENED WASHER TYPICALLY USED WITH WOOD)
G2	POST BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER TYPICALLY USED WITH STEEL POSTS) OR ASTM F844 (UNHARDENED WASHER TYPICALLY USED WITH WOOD)
G3	POST BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
H1	7/8" DIA. SOIL TUBE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD 7/8" ASTM A563DH OR SAE J995 GRADE 5
H2	SOIL TUBE BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 7/8" ASTM F844 TYPE 1 (HARDEN WASHER ONLY)
H3	SOIL TUBE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD 7/8" ASTM A563DH OR SAE J995 GRADE 5
J1	16D DOUBLE HEAD NAIL	ASTM A153 HOT DIPPED CLASS D DOUBLE HEAD ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)
L1	BCT TIMBER POST	WISDOT SPEC. 614 S4S FINISH ON 4 SIDE
L2	BCT POST SLEEVE	AASHTO M111/ASTM A123 2 3/8" OD ASTM 53 GRADE B
M1	W6X8.5 OR W6X9 STEEL POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
M2	W6X8.5 OR W6X9 STEEL POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
N1	ANCHOR BRACKET	AASHTO M111/ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
N2	ANCHOR BRACKET - BEARING PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI

PART NUMBER	DESCRIPTION	MATERIAL SPECIFICATION
P1	5/8" DIA. ANCHOR BRACKET BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD 5/8" ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
P2	ANCHOR BRACKET BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
P3	SOIL TUBE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
Q1	5/8" DIA. NOSE CABLE	6X19 AASTHO M30 / ASTM A741 XIPS INDEPENDENT WIRE CORE (IWRC) PR 6X25 XIPS, IWRC NOMINAL BREAKING STRENGTH OF 41.2 KIPS.
Q2	NOSE CABLE-SWAGE BUTTON	COLD TUFF BUTTON, S-409 SIZE NO. 12 STOCK NUMBER 1040395 OR ANY OTHER SIMILAR SIZED WAGED-GRIP-BUTTON FERRULES. ASTM A576 GRADE 1035 SWAGE FITTING ARE TO BE FIELD SWAGED PER MANUFACTURERS RECOMMENDATION. NOMINAL BREAKING STRENGTH OF 41.2 KIPS.
R1	NOSE CABLE ANCHOR BRACKET	AASHTO M111/ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
S1	5/8" DIA. SPLICE BOLT - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
S2	SPLICE - BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD 5/8" ASTM A563DH OR SAE J995 GRADE 5
T1	1/4" DIA. NOSE CABLE - U BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
T2	U-BOLT - PLATE WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
T3	U-BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
U1	7/16" DIA. SLIP POST ASSEMBLY - BREAKAWAY BOLT	ASTM A153 OR B695 CLASS 55 OR F2329 UNC FULLY THREADED HEX HEAD TAP BOLT ASTM A449 OR SAE J429 GRADE 5
U2	7/16" DIA. SLIP POST ASSEBLY - BREAKAWAY BOLT - WASHER	ASTM F436 TYPE I (HARDEN TYPICALLY USED WITH STEEL) GALV. AASHTO M111/ASTM A 123 OR GALV. HOT DIP. TO POST BOLT CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 55, F2329
U3	SLIP POST ASSEBLY - BREAKAWAY BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / STM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
V1	¾" DIA. BCT CABLE	AASHTO M30 / ASTM A741 6X19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS), 6X19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS) TYPE II OR IIC, CLASS C ZINC COATED MIN BREAKING STRENGTH OF 42.7 KIPS
V2	ANCHOR CABLE-SWAGE FITTING	UNC ASTM A576 GRADE 1035 SWAGE FITTING ARE TO BE FACTORY SWAGED. MIN. BREAKING STRENGTH OF 42.7 KIPS. ASME B30.26 "FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING IN TO CONNECTION: NAME OF MANUFACTURE OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE FOR ALLOY EYEBOLTS."
V3	1" DIA. ANCHOR CABLE-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
V4	1" DIA. ANCHOR CABLE-NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
W1	REFLECTOR	SEE SDD 15A4

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STEEL THRIE BEAM BULLNOSE TERMINAL

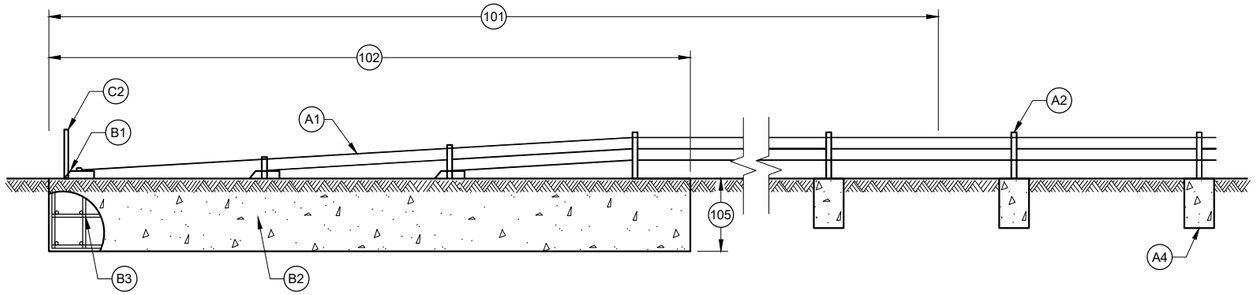
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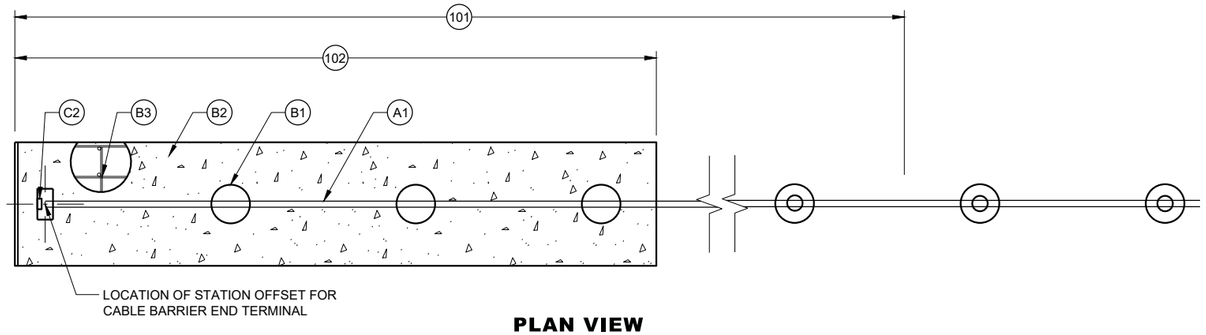
August 2020
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

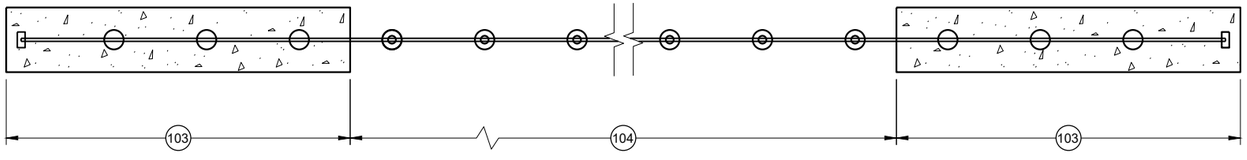


PROFILE VIEW

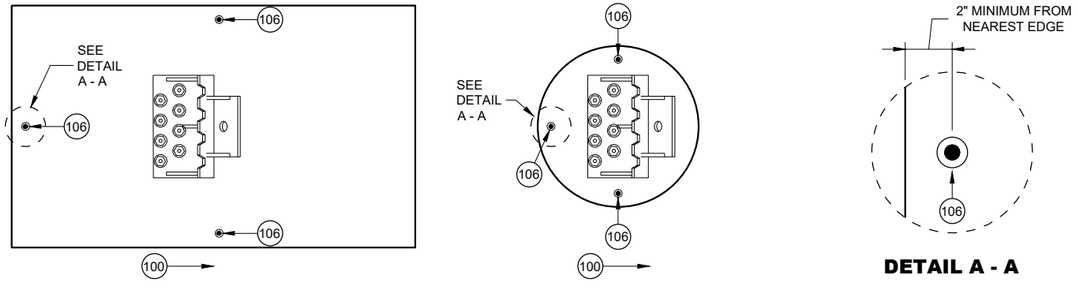


PLAN VIEW

TRANSITION FROM CABLE BARRIER TERMINAL TO CABLE BARRIER LINE POSTS



TYPICAL PLAN VIEW



DETAIL A - A

ANCHOR MONITOR POINTS FOR CABLE BARRIER END TERMINAL ANCHORS

GENERAL NOTES

DRAWINGS ARE GENERAL IN NATURE. SEE MANUFACTURER'S INFORMATION FOR MORE DETAIL.

PROVIDE 2 INCH CLEAR COVER FROM OUTER EDGE OF CONCRETE FOOTINGS TO REINFORCEMENT.

INSTALL LINE POSTS PLUMB. LINE POSTS ARE TO BE EASILY REMOVED BY HAND AND HOLD CABLES AT THE PROPER ELEVATION.

PROVIDE CABLE BARRIER SYSTEM FROM APPROVED PRODUCT LIST.

PROVIDE A SYSTEM TO HAVE THE WORKING WIDTH INDICATED IN PLAN.

PROVIDE DOCUMENTATION HOW POST SPACING, RADIUS OF CURVE AND ANCHOR SPACING INFLUENCES WORKING WIDTH TO CONSTRUCTION STAFF.

CONSTRUCT SHAFTS VERTICALLY. VERTICAL TOLERANCE OF SHAFT IS $\frac{1}{8}$" PER FOOT OF DEPTH. SHAFTS ARE TO MINIMIZE DISTURBANCE TO ADJACENT SOILS.

SECURE STEEL REINFORCEMENT AND STEEL SLEEVE PRIOR TO PLACEMENT OF CONCRETE. MAINTAIN CLEAR DISTANCE BETWEEN SOIL AND REINFORCEMENT CAGE.

PLACE CONCRETE IN ONE CONTINUOUS POUR FOR EACH FOOTING. USE VIBRATION TO CONSOLIDATE CONCRETE.

PROVIDE CASING AS NECESSARY TO PREVENT INTRUSION OF UNCONSOLIDATED MATERIALS OR WATER. USE CASINGS WHEN THERE IS 3 OR MORE INCHES OF WATER IN EXCAVATION.

PROVIDE WISCONSIN PROFESSIONAL ENGINEER SIGNED AND APPROVED FOOTING DESIGN USING A CASING AND CONSTRUCTION SEQUENCE. PROJECT ENGINEER WILL REVIEW AND APPROVED CASING DESIGN AND CONSTRUCTION SEQUENCE. CASING IS TO HAVE INTIMATE CONTACT WITH SHAFT SIDEWALL. CASING IT TO WITHSTAND INSERTION STRESS, REMOVAL STRESS, CONCRETE PRESSURE AND SOIL PRESSURE. REMOVE CASING DURING CONCRETE PLACEMENT OR IMMEDIATELY AFTER CONCRETE PLACEMENT. NO TEMPORARY CASING MAY REMAIN IN-PLACE.

PROVIDE WISCONSIN PROFESSIONAL ENGINEER SIGNED AND APPROVED FOOTING DESIGN AND CONSTRUCTION SEQUENCE WHEN OVER EXCAVATION IS REQUIRED NEAR A FOOTING. PROJECT ENGINEER WILL REVIEW AND APPROVED DESIGN AND CONSTRUCTION SEQUENCE.

FINISH TOP OF FOOTINGS TO THE DIMENSIONS INDICATED IN PLAN. REMOVE EXCESS CONCRETE.

DESIGN POST FOOTINGS SO THAT LINE POST FOOTING MOVE LESS THAN 1 INCH WHEN LINE POST IS IMPACTED BY A NCHRP TL-3 SMALL CAR.

USE MARINE GRADE ANTI-SEIZE LUBRICANT FOR THREADING FITTINGS THAT IS ACCEPTABLE FOR USE ON GALVANIZED STEEL.

(100) DIRECTION THAT THE CABLE PULLS THE END ANCHOR FOOTING

(101) LOCATION OF LENGTH OF NEED POINT FOR CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)

(102) PAY LIMIT FOR CABLE BARRIER END TERMINAL. LENGTH OF CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)

(103) CABLE BARRIER END TERMINAL

(104) CABLE BARRIER AND LINE POSTS

(105) IN SOIL MINIMUM DEPTH OF CABLE BARRIER END TERMINAL FOOTING IS 60 INCHES. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENDATION ARE ACCEPTABLE.

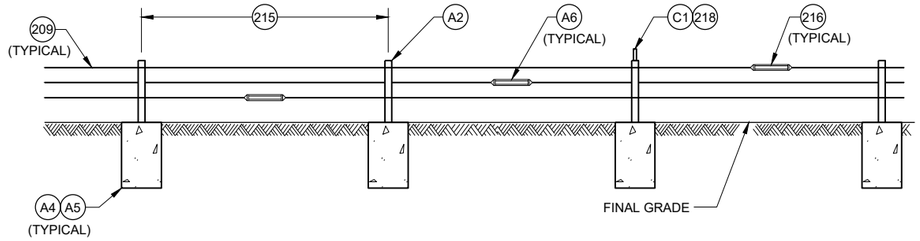
(106) ANCHOR MONITOR POINTS ARE GALVANIZED SURVEY NAIL, OR MASONRY NAIL, PLACED INTO CONCRETE FOOTING BEFORE HARDENING. IF THERE ARE MULTIPLE ANCHOR POINTS WITHIN A PAY LIMIT FOR A CABLE BARRIER END TERMINAL, EACH ANCHOR POINT NEEDS THREE ANCHOR MONITOR POINTS.

CABLE BARRIER TYPE 1 LAYOUT

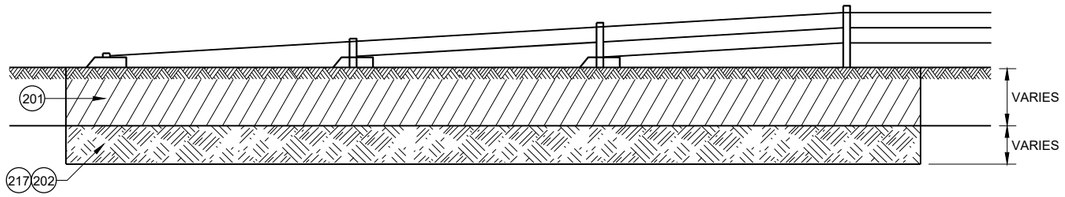
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD14B52 - 02a



PROFILE VIEW
LINE POST INSTALLATION



CABLE BARRIER END TERMINAL
ROCK EXCAVATION DETAIL

GENERAL NOTES

201 SOIL TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES)

202 ROCK TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES)

203 SOIL TO BE EXCAVATED FOR LINE POST (VARIES)

204 ROCK TO BE EXCAVATED FOR LINE POST (VARIES)

205 EXCAVATE AND GRADE LINE FOR LINE POST FOOTINGS. INSTALL LINE POST FOOTING TO MINIMIZE 4 INCH TALL OBJECT ON 5 FOOT CHORD.

206 2 INCHES OF CLEAR COVER FROM EDGE OF CONCRETE TO REINFORCEMENT.

207 DIAMETER OF LINE POST FOOTING VARIES. SEE MANUFACTURERS' INFORMATION.

208 MINIMUM DEPTH OF LINE POST FOOTING IS 4' - 0" IN SOIL. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENDATION ARE ACCEPTABLE.

209 NUMBER AND LOCATION OF CABLES VARY. SEE MANUFACTURERS' INFORMATION.

210 LINE POST DIMENSIONS AND CONNECTION HARDWARE VARY. SEE MANUFACTURERS' INFORMATION.

211 LANE OF ROADWAY (VARIES). SEE PLAN FOR MORE INFORMATION.

212 PAVED SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.

213 GRAVEL SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.

214 CABLE BARRIER OFFSET FROM CENTERLINE OF MEDIAN DITCH (8 FOOT MINIMUM). SEE PLAN FOR MORE INFORMATION.

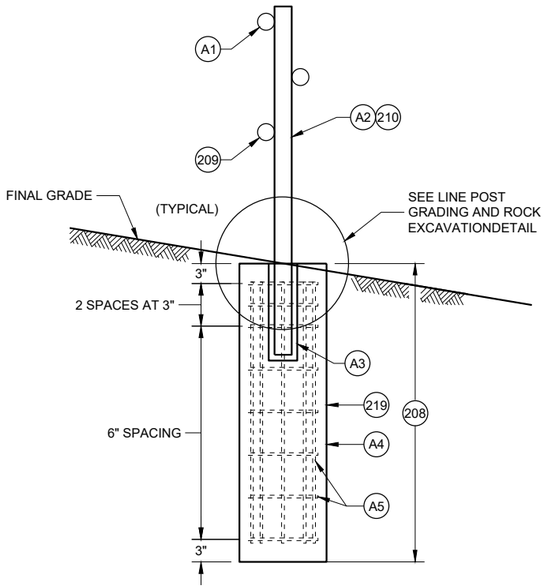
215 MAXIMUM POST SPACING IS 15 FEET.

216 STAGGER TURNBUCKLES (TYPICAL).

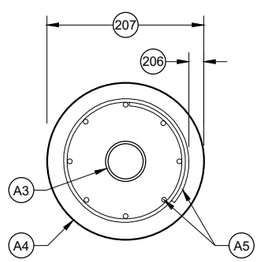
217 SEE MANUFACTURER'S DESIGN WHEN ROCK IS ENCOUNTERED.

218 LINE POST DELINEATOR SPACING IS 100 FEET.

219 MINIMUM LINE POST FOOTING REINFORCEMENT SHOWN. MANUFACTURER IS TO INDICATE REINFORCEMENT IS ADEQUATE FOR THEIR SYSTEM. IF REINFORCEMENT IS NOT ADEQUATE, PROVIDE FOOTING DESIGN WITH A ADEQUATE REINFORCEMENT.

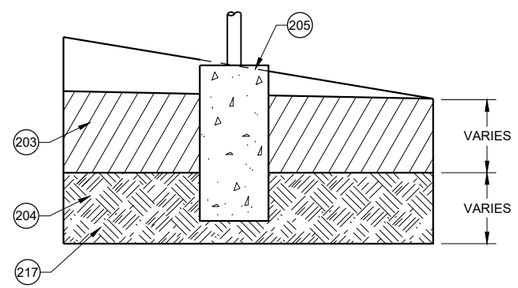


CROSS SECTION

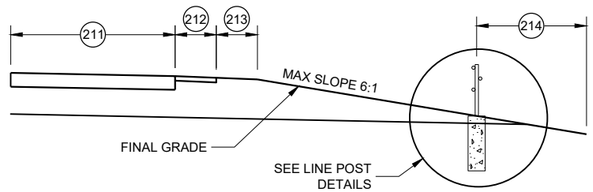


PROFILE VIEW
(LINE POSTS AND CABLES NOT SHOWN)

LINE POST DETAILS



LINE POST GRADING
AND ROCK EXCAVATION DETAIL



CABLE BARRIER OFFSET FROM DITCH LINE

CABLE BARRIER
TYPE 1 LAYOUT

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BILL OF MATERIALS

PART NUMBER	QTY.	DESCRIPTION	MATERIALS SPECIFICATIONS
(A1)	3 OR 4	¾" 3x7 PRESTRECHED GALVANIZED STEEL WIRE ROPE	AASHTO M30 TYPE 1 CLASS A OR ASTM A741 TYPE 1 CLASS A WITH MINIMUM BREAKING STRENGTH = 39 KIPS (173.5 KN)
(A2)	1 PER LINE POST	GALVANIZED REMOVABLE STEEL LINE POST	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
			ASTM A123 (GALVANIZATION).
(A3)	1 PER LINE POST	GALVANIZED STEEL SLEEVE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
			ASTM A123 (GALVANIZATION).
(A4)	VARIES	CONCRETE FOR LINE POST FOOTING	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2 OR AS MANUFACTURER SPECIFIES.
			STANDARD SPECIFICATION 716 QMP FOR CLASS II ANCILLARY CONCRETE
			SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
(A5)	VARIES	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
			ALL BARS ARE NO. 4 BARS
(A6)	VARIES	TURNBUCKLES AND OTHER CABLE CONNECTING HARDWARE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
			MINIMUM BREAKING STRENGTH OF TURNBUCKLES AND CONNECTION HARDWARE IS EQUAL TO CABLE.
			TURNBUCKLES AND OTHER CABLE CONNECTION HARDWARE IS FIELD SWAGED PER MANUFACTURER'S RECOMMENDATION AND DETAILS.
			PROVIDE DOCUMENTATION THAT THE FITTINGS ARE STRONGER THAN THE CABLE BARRIER. DOCUMENTATION IS TO INCLUDE: MANUFACTURER NAME, TESTING RESULTS, AND DATE OF TESTING.
(B1)	VARIES	CABLE CONNECTION TO CABLE BARRIER END TERMINAL	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
(B2)	VARIES	CONCRETE FOR CABLE BARRIER END TERMINAL	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2.
			STANDARD SPECIFICATION 716 QMP FOR CLASS II ANCILLARY CONCRETE
(B3)	VARIES	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
(C1)	VARIES	LINE POST DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVED PRODUCT LIST YELLOW.
(C2)	VARIES	CABLE BARRIER END TERMINAL DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVED PRODUCT LIST OBJECT MARKER TYPE 3 PATTERN

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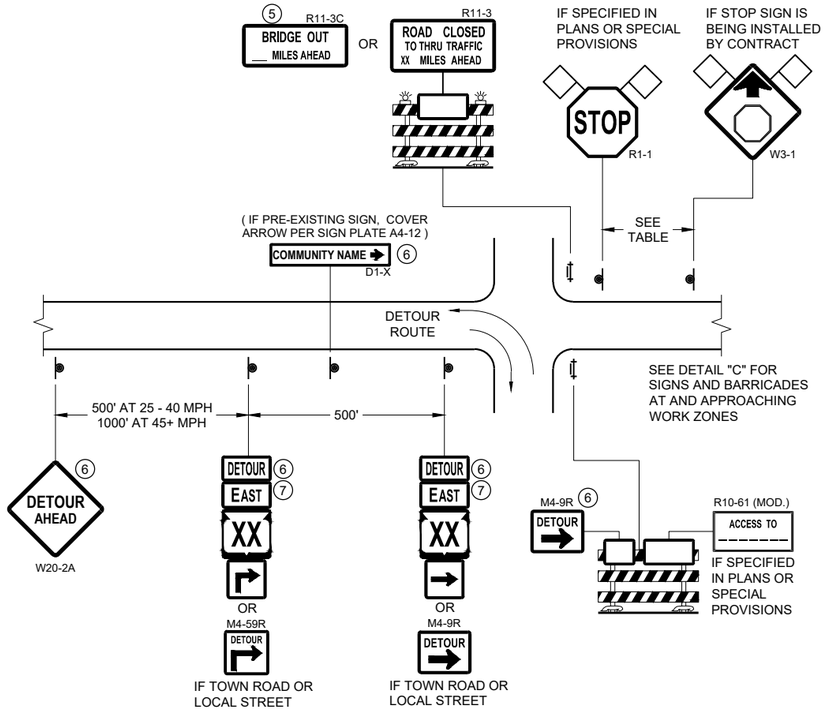
CABLE BARRIER TYPE 1 LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE

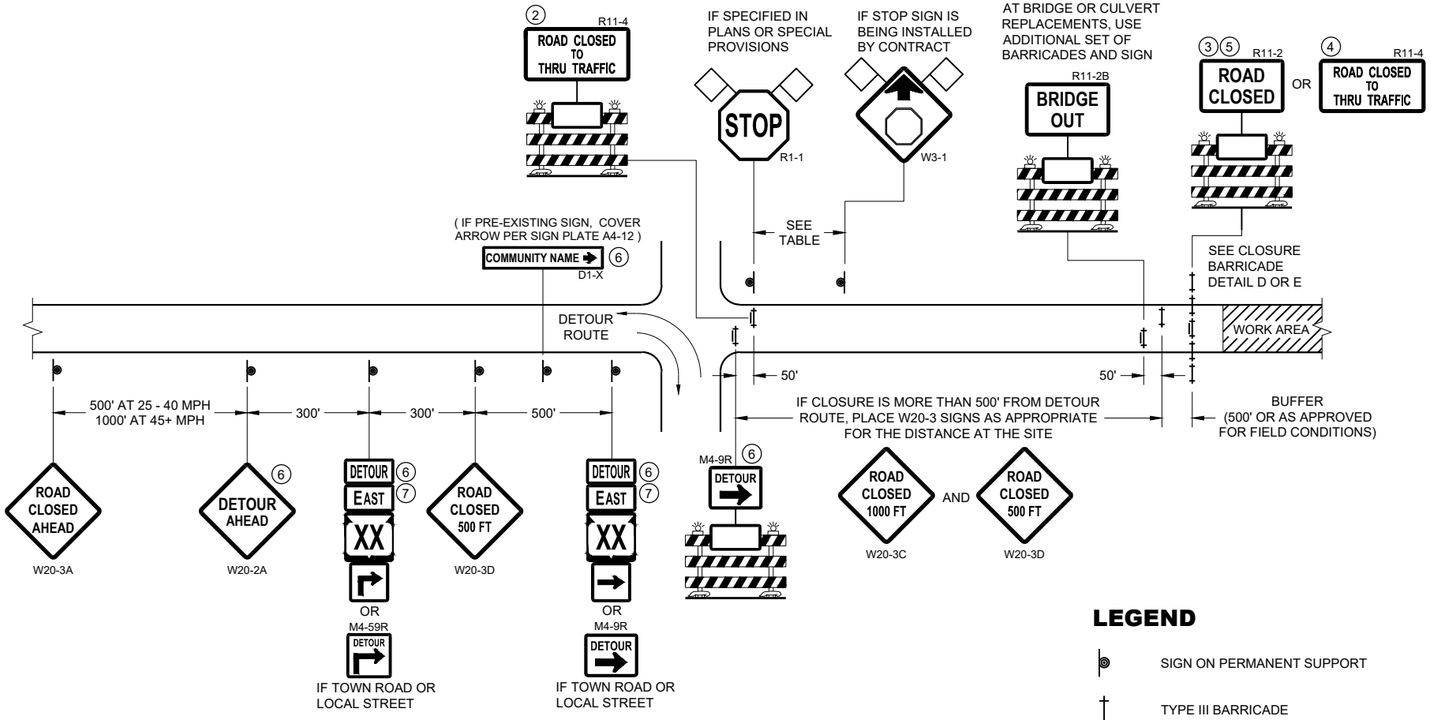
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA



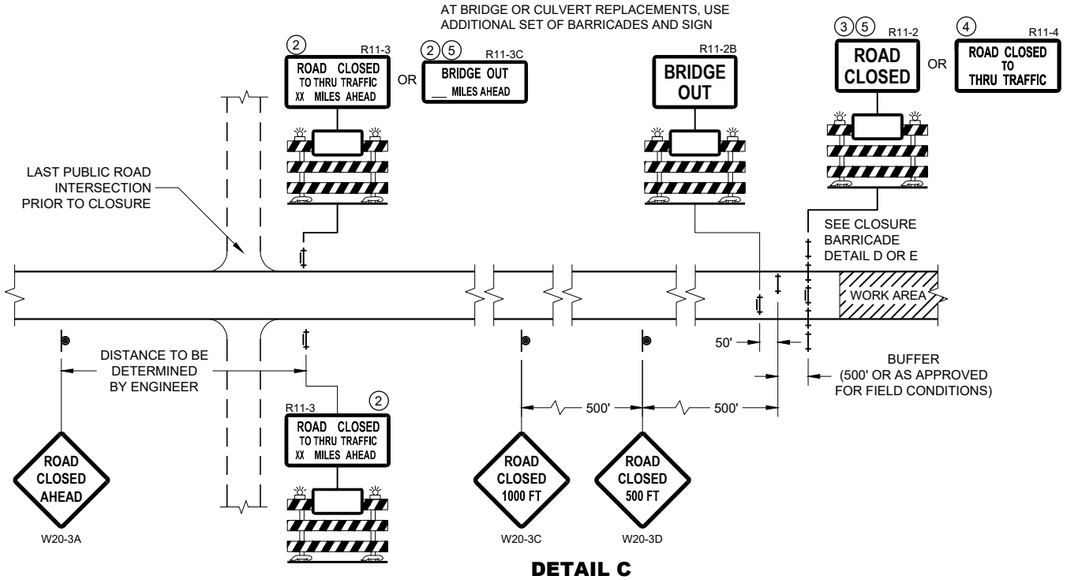
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

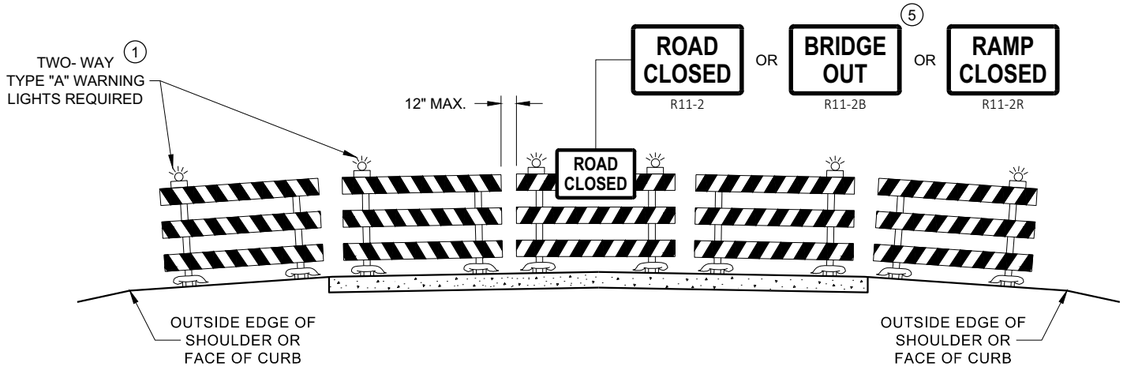
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

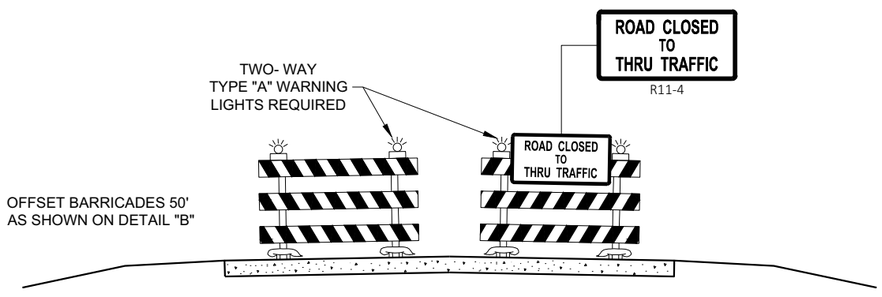
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SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

"WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

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SDD 15C02 - 08b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

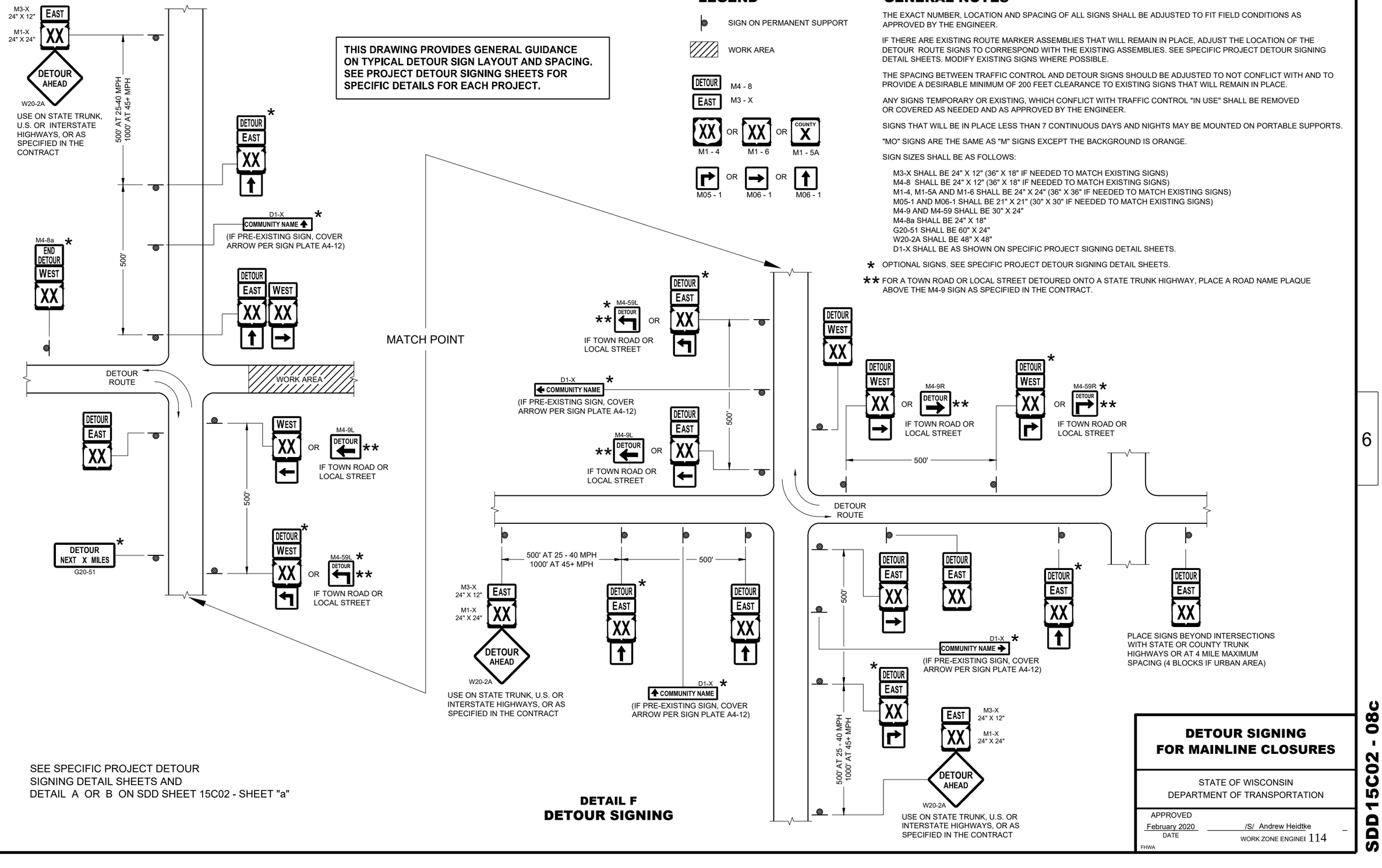
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
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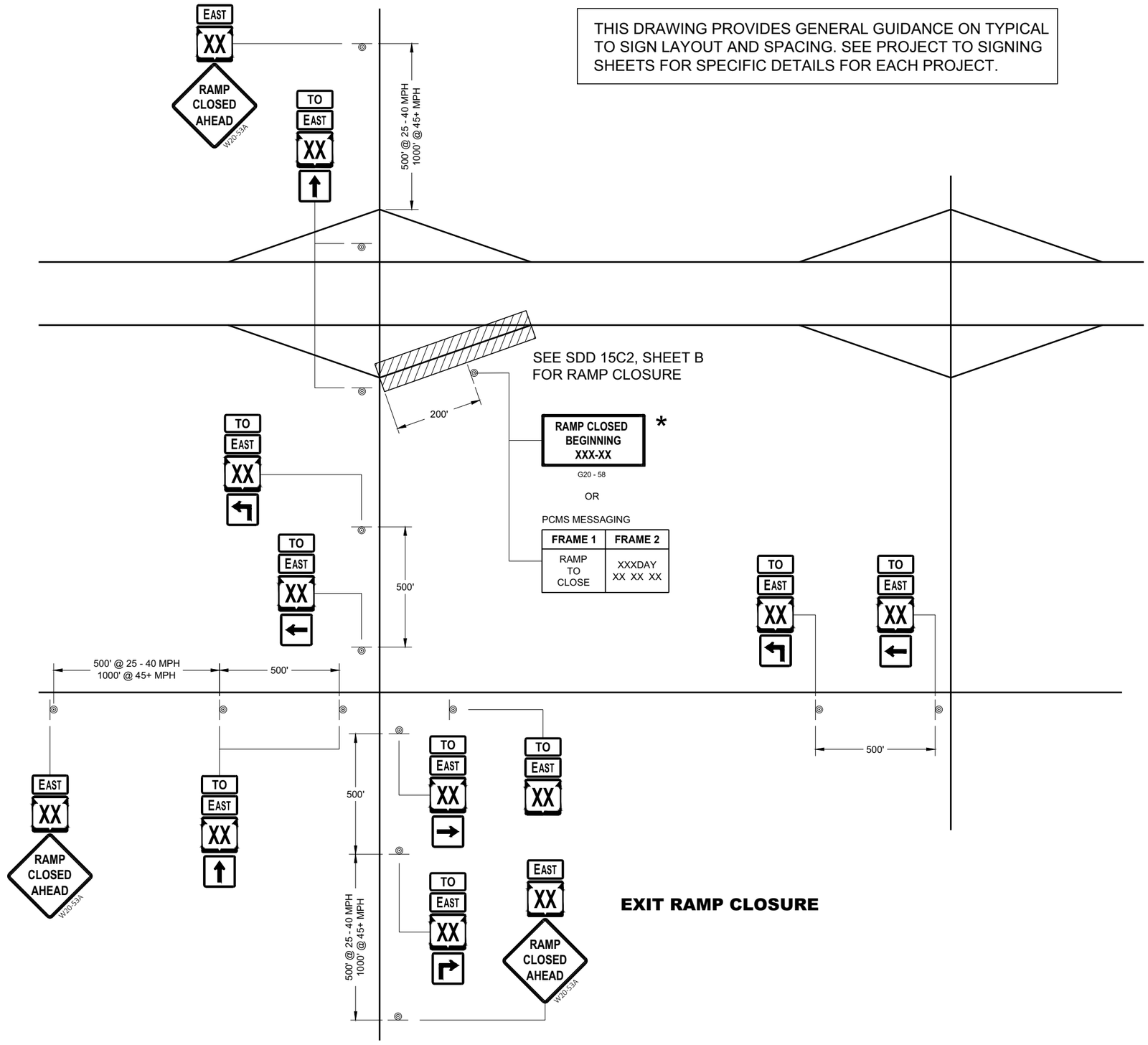
APPROVED
February 2020
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WORK ZONE ENGINEER

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THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL TO SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

SIGN ON PERMANENT SUPPORT

TO EAST — MO4 - 5, M3 - X

XX M1 - 6 OR XX M1 - 4 OR INTERSTATE XX M1 - 1

M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE TO ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND TO SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL " IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT SHALL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOW:
- M3 - X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 1, M1 - 4, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).
- W20 - 53A SHALL BE 48" X 48"

* PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR LAYOUT.

EXIT RAMP CLOSURE

ON RAMP LANE CLOSURE

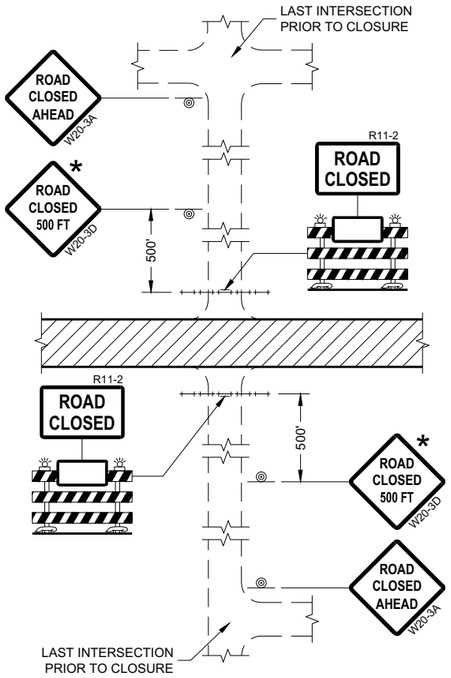
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

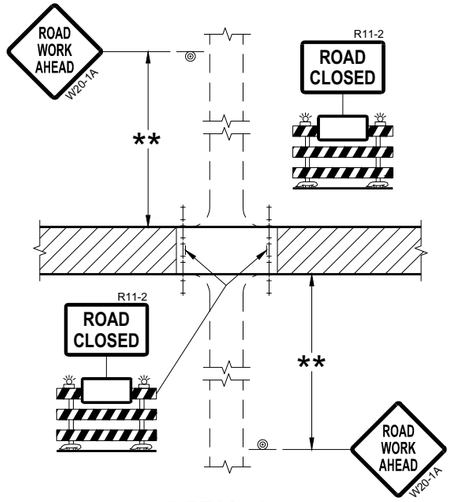
FHWA

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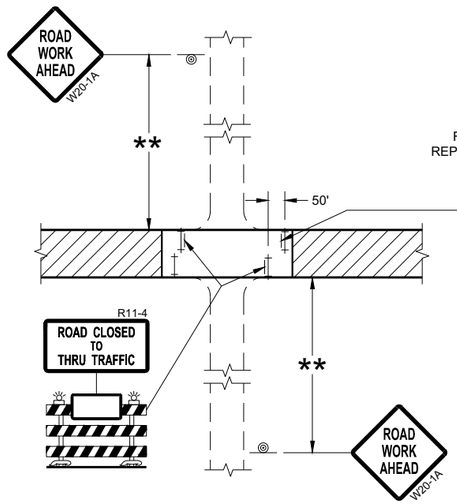
SDD 15C02 - 08d



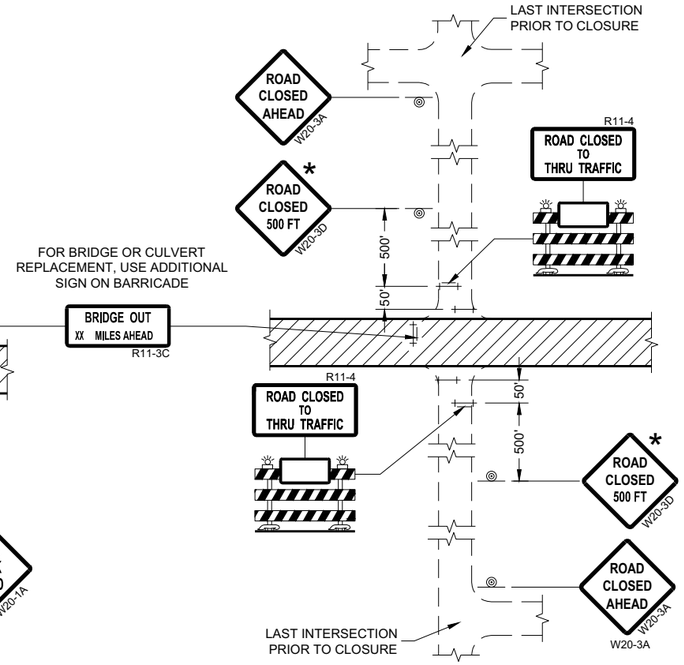
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C03 - 05

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

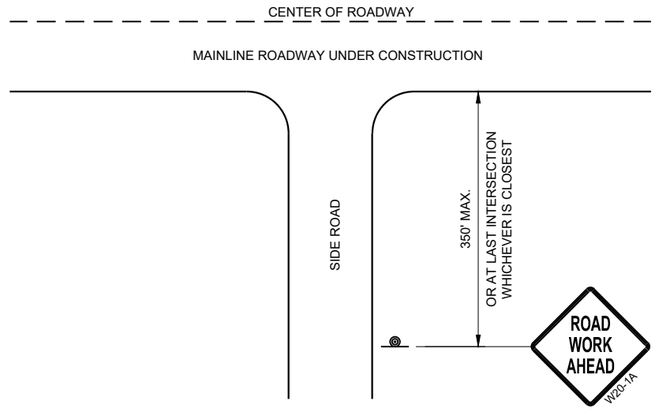
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



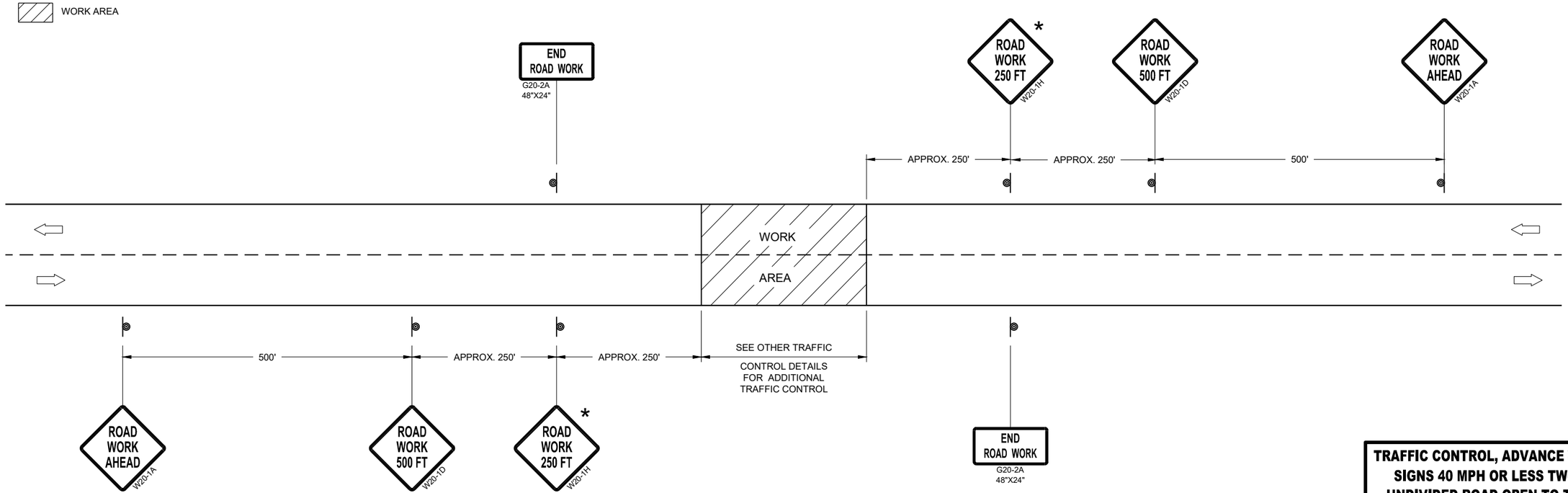
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

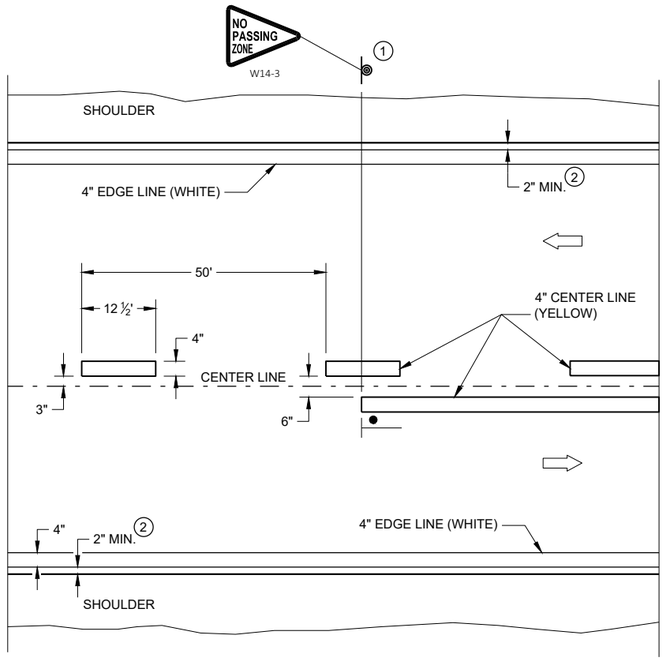
APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

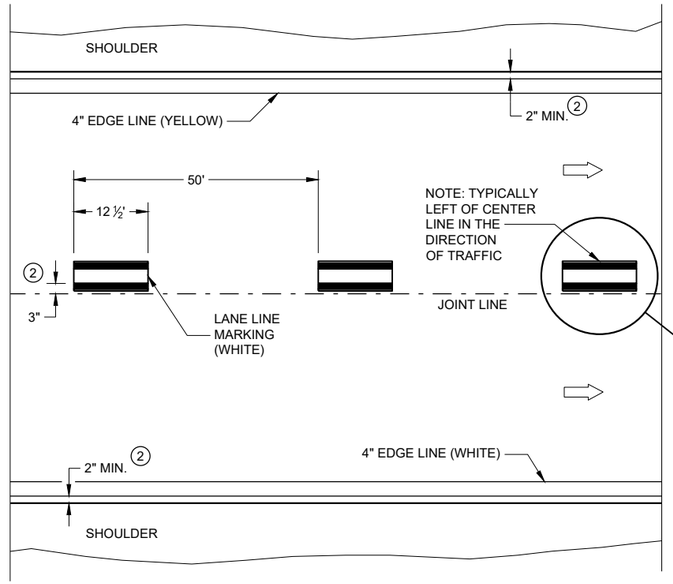
FHWA

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SDD 15C05 - 05

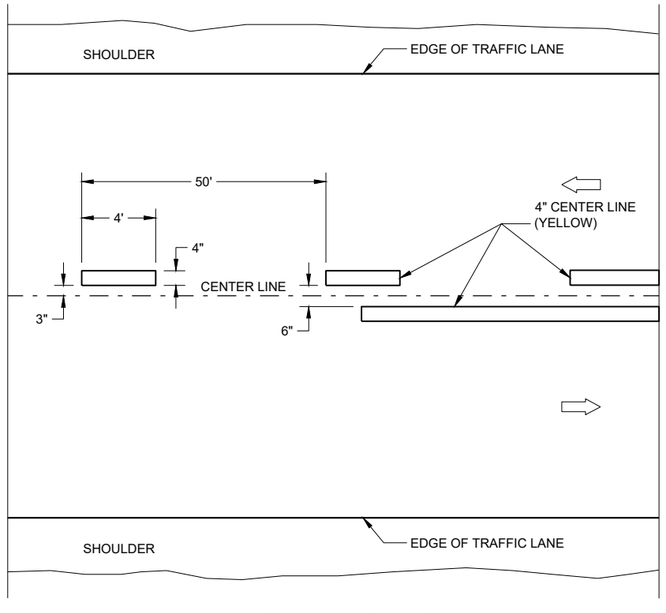


TWO WAY TRAFFIC

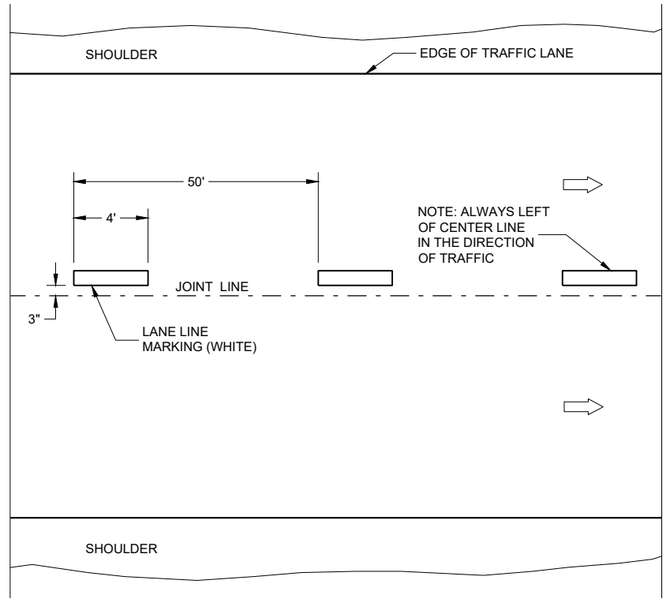


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

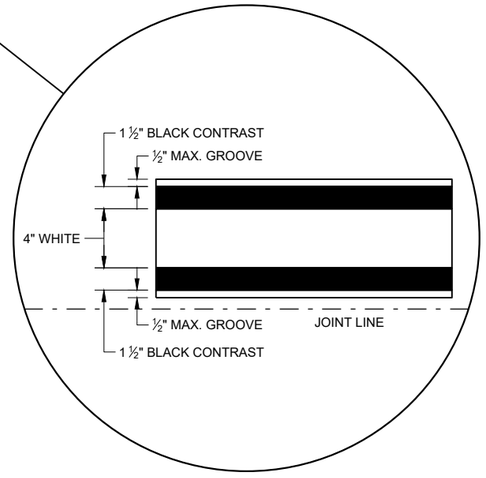
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Matthew Rauch
STATEWIDE SIGNING AND M ENGINEER

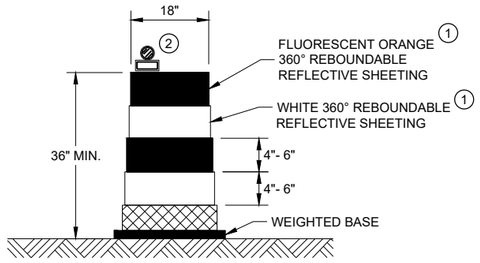
FHWA

SDD 15C08 - 20a

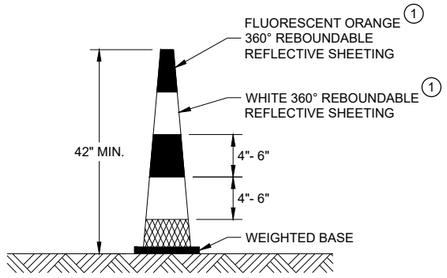
SDD 15C08 - 20a

GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

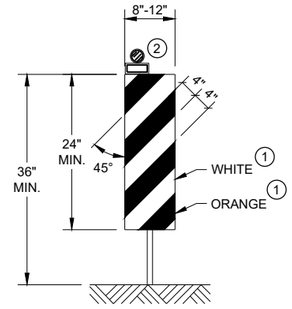


DRUM



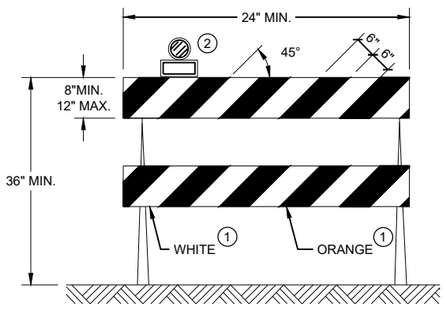
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



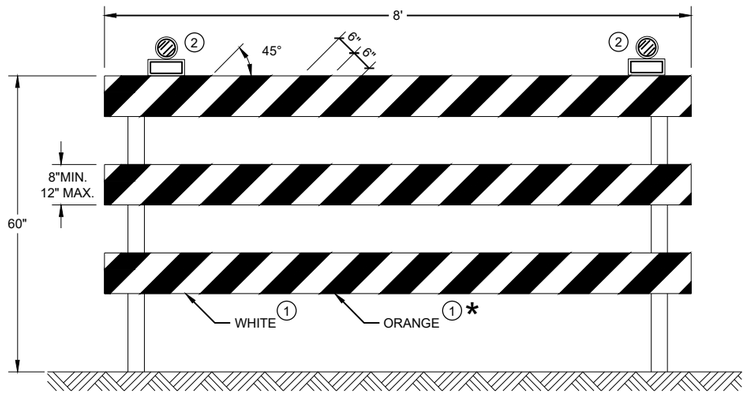
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C11 - 09b

6

SDD 15C11 - 09b

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DELINEATOR, FLEXIBLE/TUBULAR MARKER
- TEMPORARY DELINEATOR (STEEL POST W/SINGLE DELINEATOR)
- PORTABLE CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- REMOVE PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

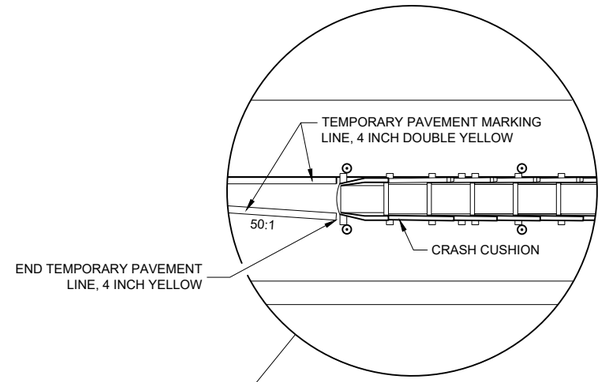
"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

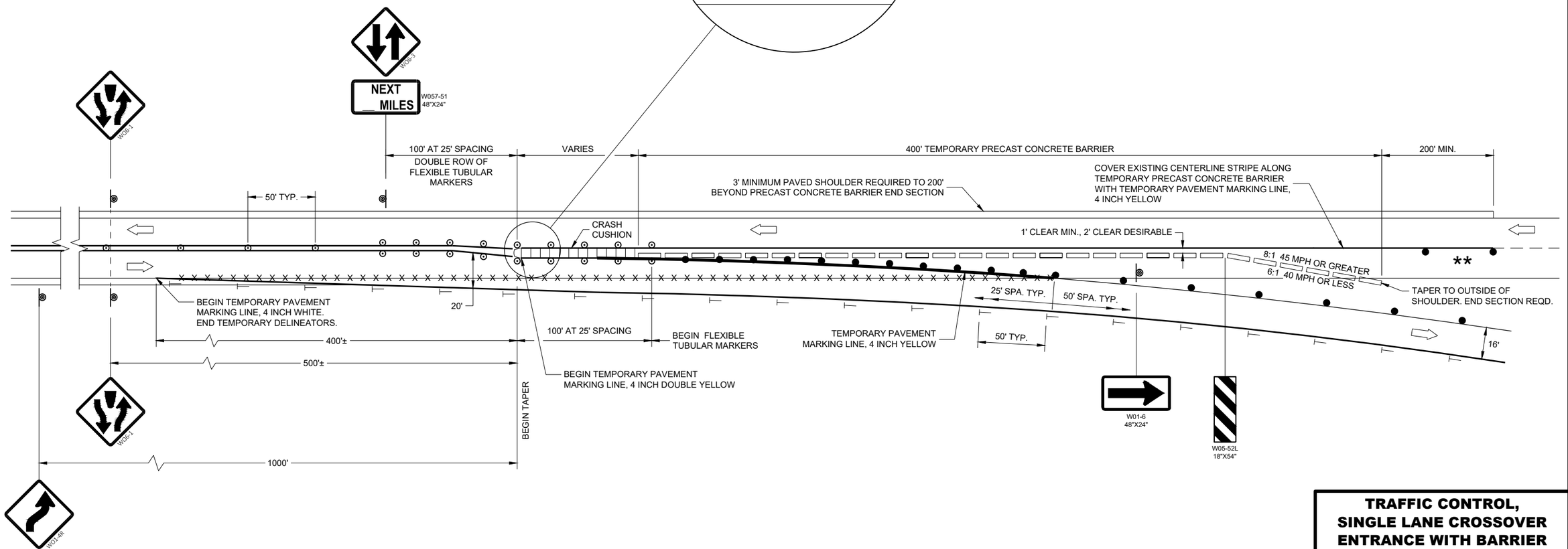
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS.

** SEE SDD 15D12 FOR LANE CLOSURE DETAILS.





TRAFFIC CONTROL, SINGLE LANE CROSSOVER ENTRANCE WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15D05 - 05

SDD 15D05 - 05

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DELINEATOR FLEXIBLE / TUBULAR MARKER
- TEMPORARY DELINEATOR (STEEL POST DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE RESPECTIVE EDGE LINE MARKING
- PORTABLE CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKINGS

GENERAL NOTES

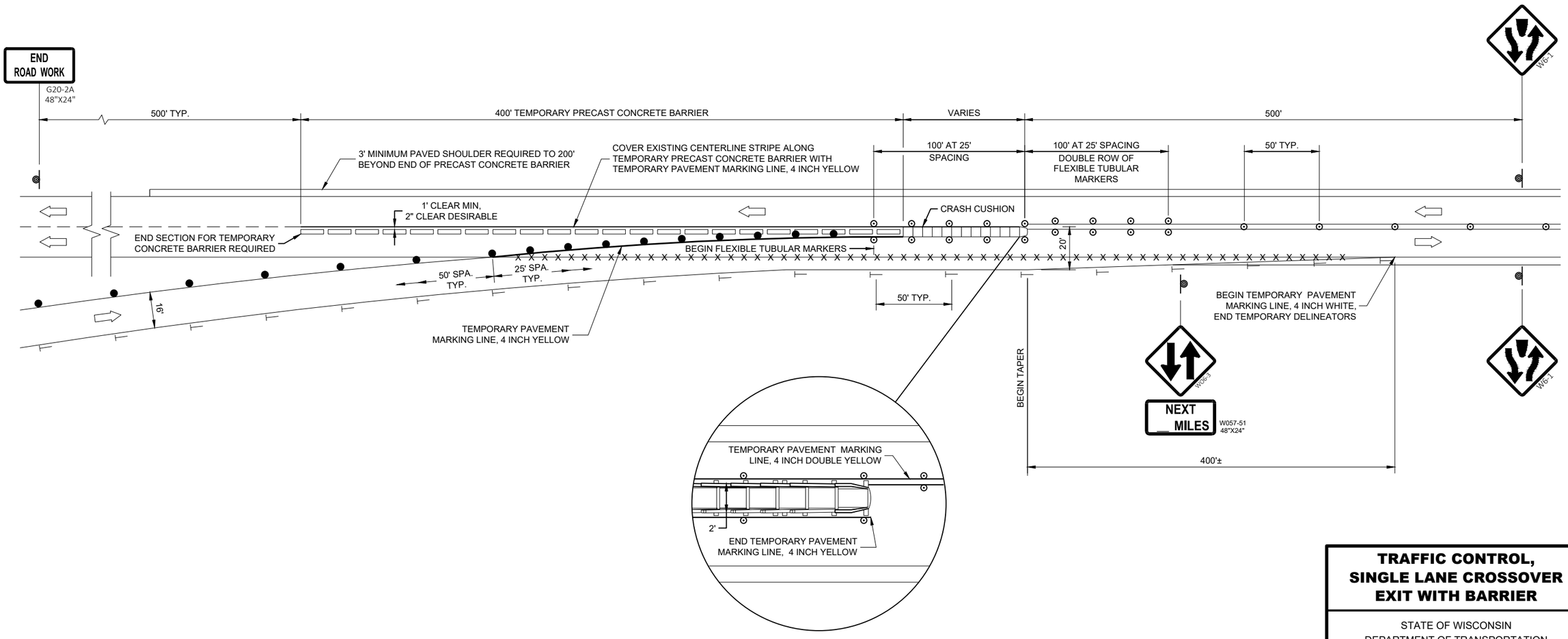
ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS.



TRAFFIC CONTROL, SINGLE LANE CROSSOVER EXIT WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

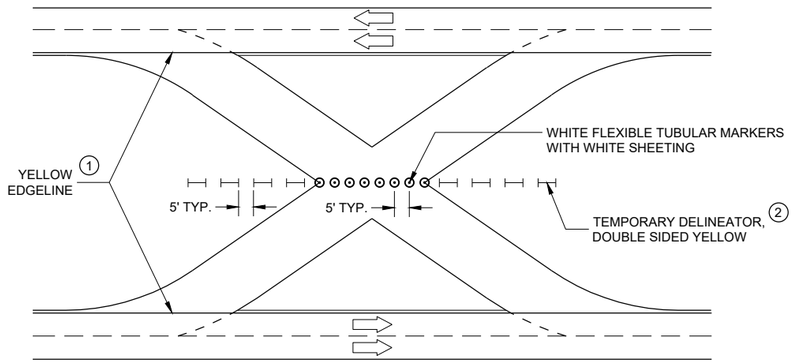
FHWA

SDD 15D10 - 05

SDD 15D10 - 05

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- DELINEATOR FLEXIBLE / TUBULAR MARKER
- TEMPORARY DELINEATOR (STEEL POST WITH SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING
- TEMPORARY DELINEATOR (DOUBLE SIDED)
- TYPE "A" WARNING LIGHT (FLASHING)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKINGS
- WORK AREA



TRAFFIC CONTROL FOR CROSSOVER THAT IS NOT IN USE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

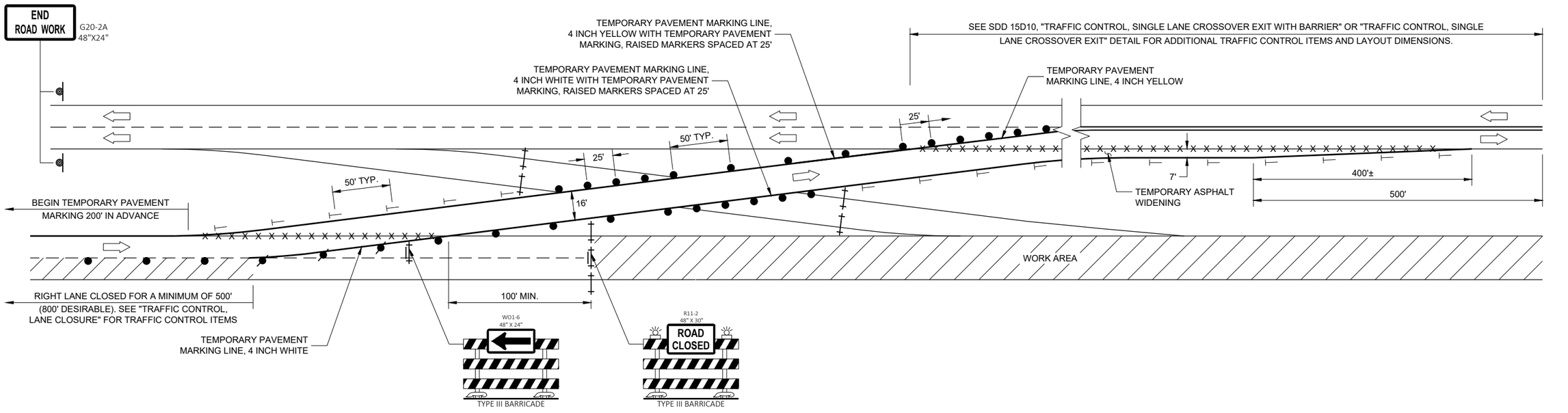
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

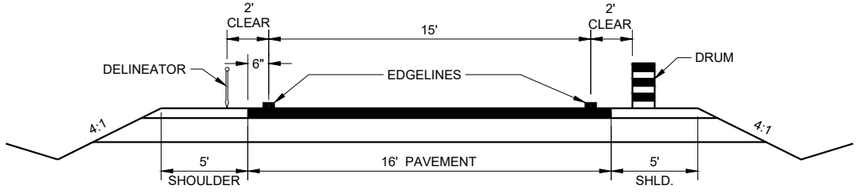
THE SPACING BETWEEN PROPOSED SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS.

REVERSE DEVICES WHEN OTHER LEG OF CROSSOVER IS IN USE.

(1) FOR PERMANENT CROSSOVER, PAVEMENT MARKING SHOULD CONFORM TO SECTION 646 OF THE STANDARD SPECIFICATIONS.

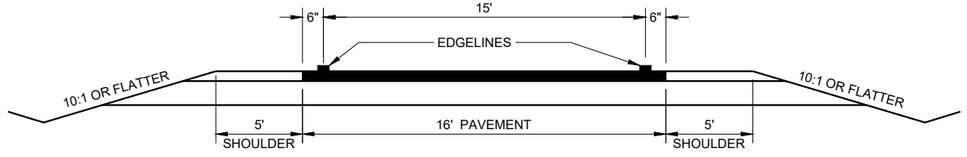
(2) FOR PERMANENT CROSSOVER, INSTALL PERMANENT DELINEATORS ACCORDING TO SECTION 633 OF THE STANDARD SPECIFICATIONS.





TYPICAL TEMPORARY CROSSOVER ROADWAY DIMENSIONS

(SEE PLAN FOR ROADWAY DESIGN ELEMENTS)



TYPICAL CROSSOVER TO REMAIN IN PLACE ROADWAY DIMENSIONS

(SEE PLAN FOR ROADWAY DESIGN ELEMENTS)

TRAFFIC CONTROL, SINGLE LANE CROSSOVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15D11 - 08

SDD 15D11 - 08

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

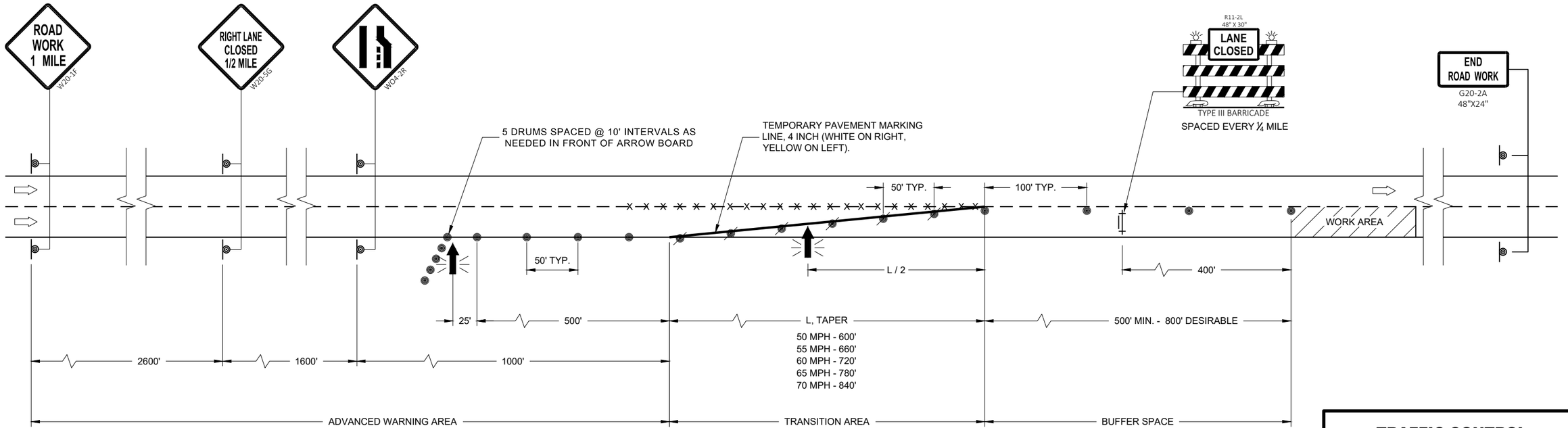
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D12 - 10a

6

SDD 15D12 - 10a

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

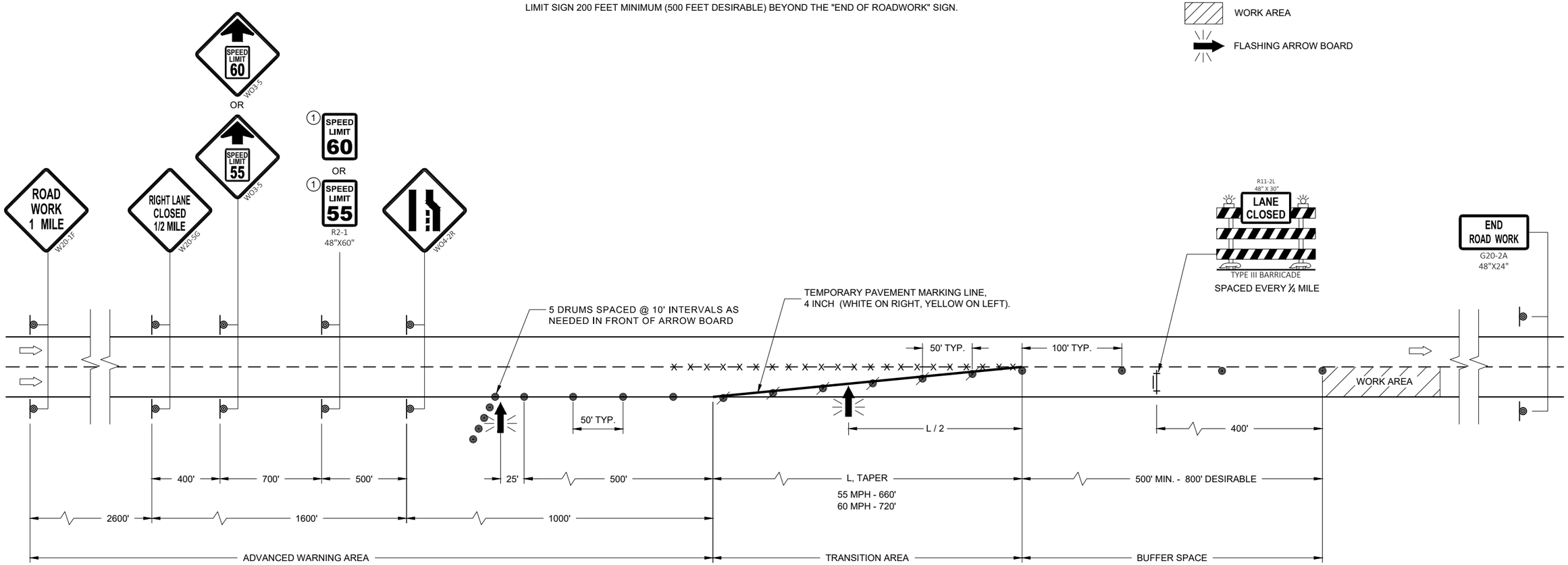
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

(1) A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIRABLE) BEYOND THE "END OF ROADWORK" SIGN.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15D12 - 10b

6
SDD 15D12 - 10b

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS /OR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

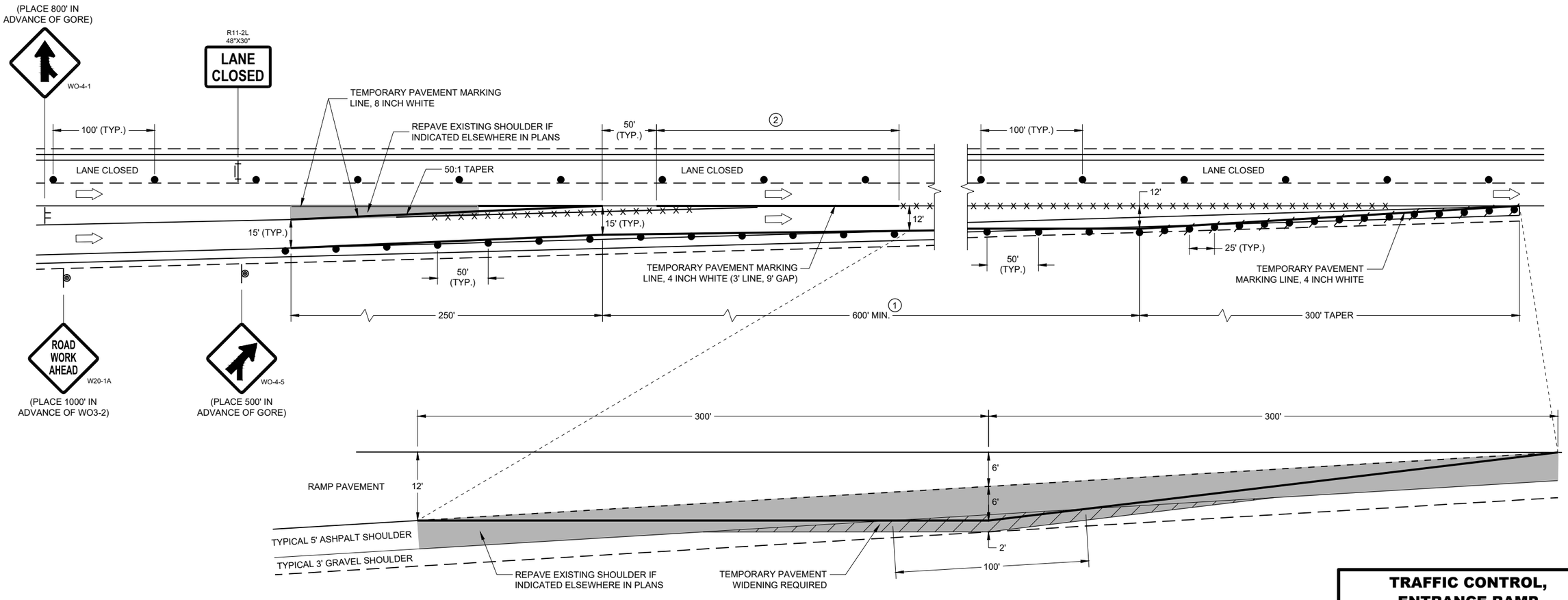
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) EXTEND THE LENGTH OF THE MERGE AREA IF THE ENTERING (DESIGN) SPEED OF THE RAMP IS LESS THAN 50 MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.

(2) END TEMPORARY PAVEMENT MARKING LINE AT ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.



TEMPORARY PAVEMENT DETAIL

(EXISTING RAMP DIMENSIONS MAY VARY, ADJUST TEMPORARY PAVEMENT ACCORDINGLY)

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15 - 06b

6

SDD15D15 - 06b

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

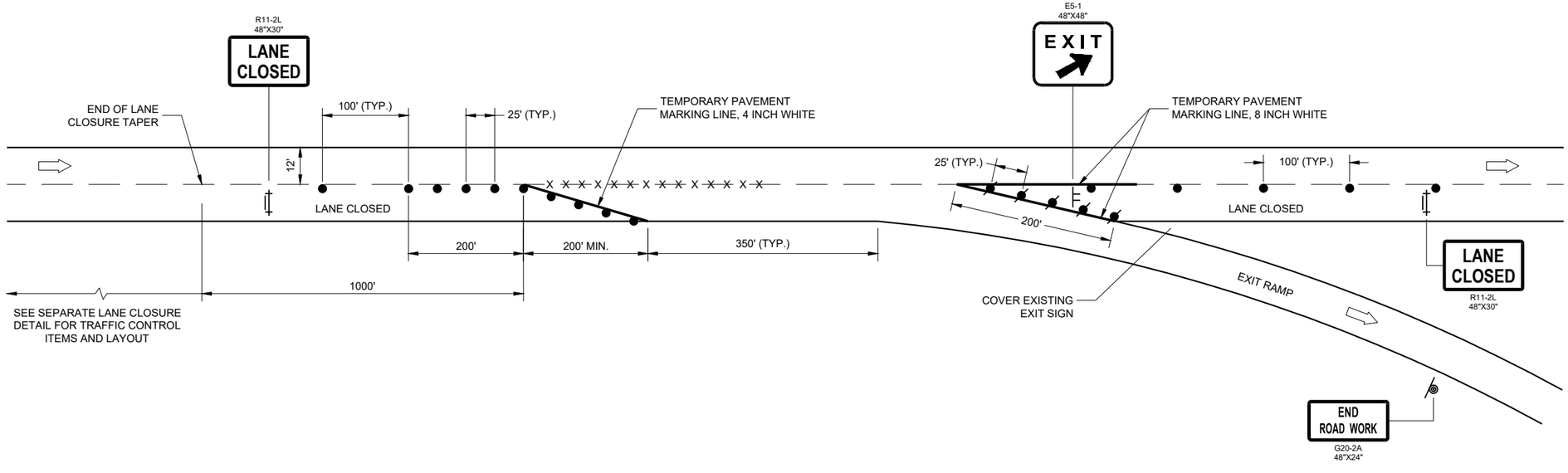
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.



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SDD 15D15 - 06e

SDD15D15 - 06e

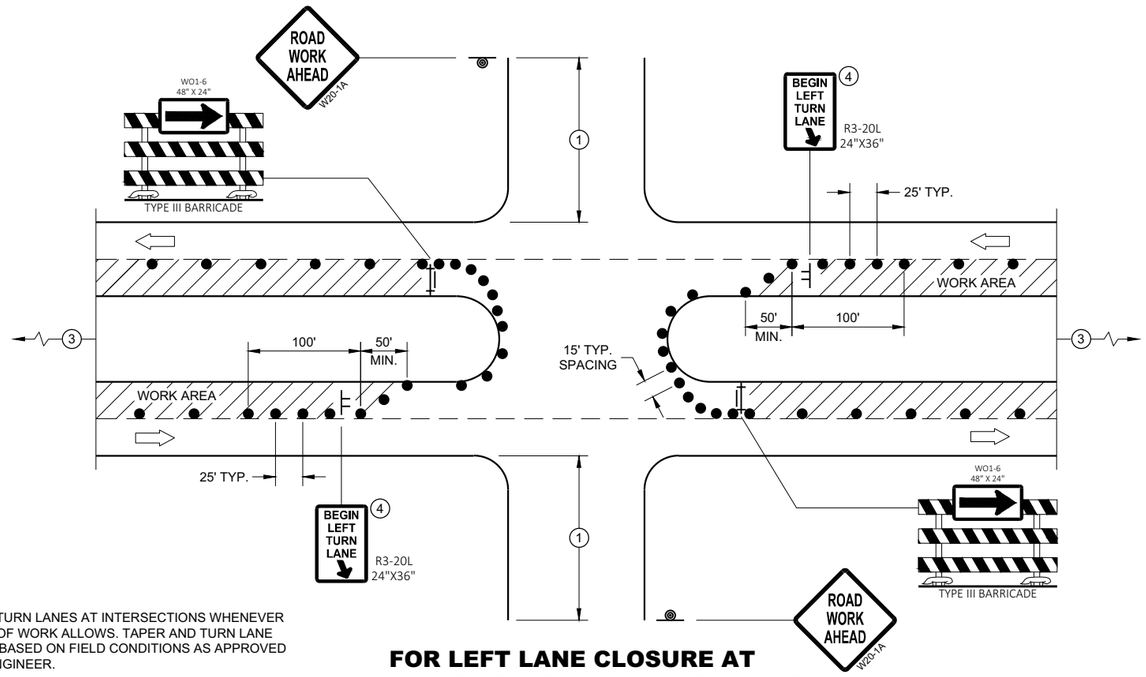
**TRAFFIC CONTROL,
PARALLEL EXIT RAMP
WITHIN LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

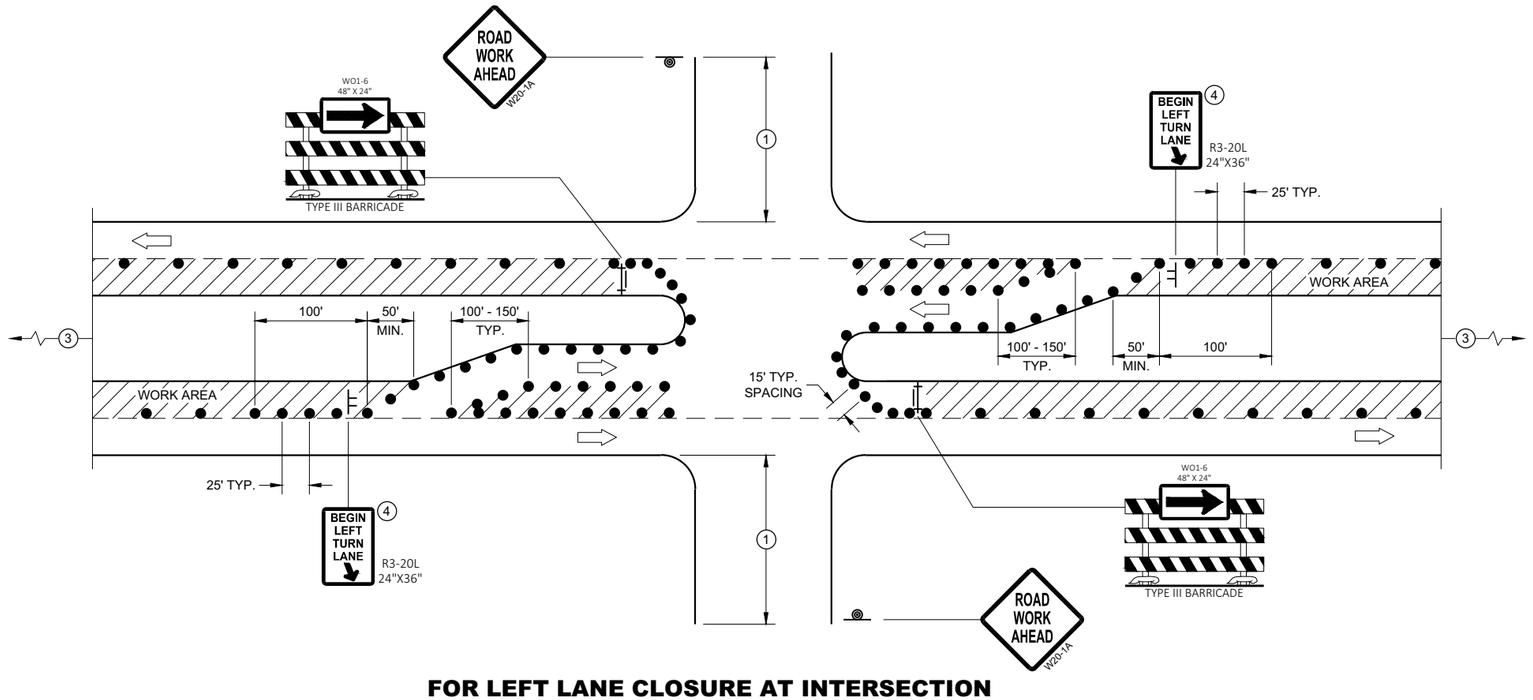
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

6

SDD 15D21 - 07b

6

SDD 15D21 - 07b

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

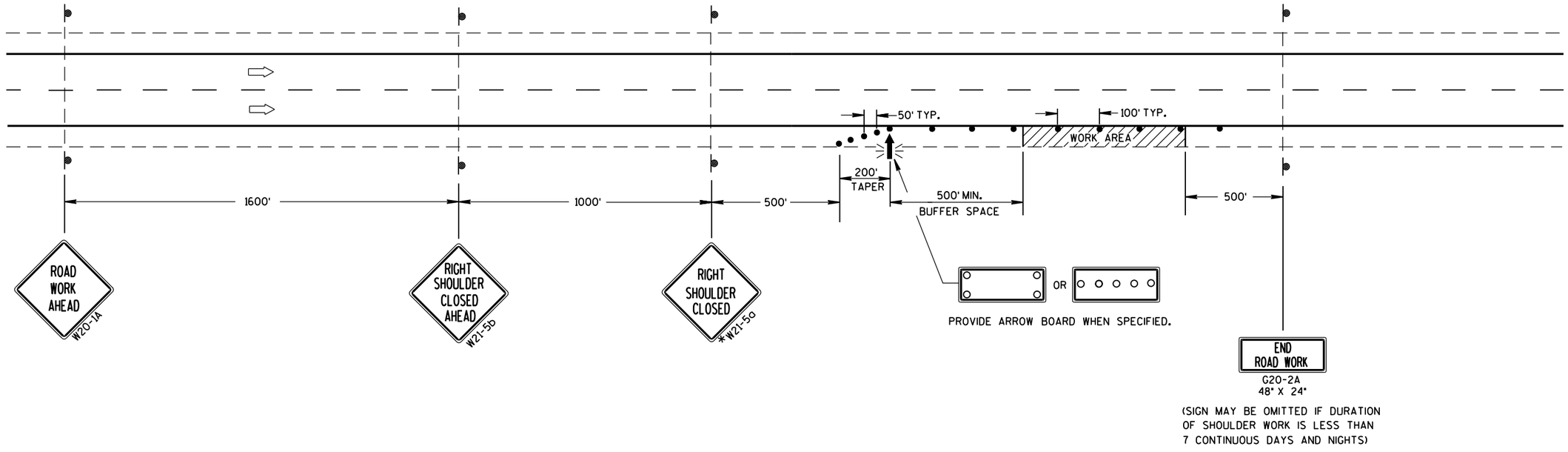
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

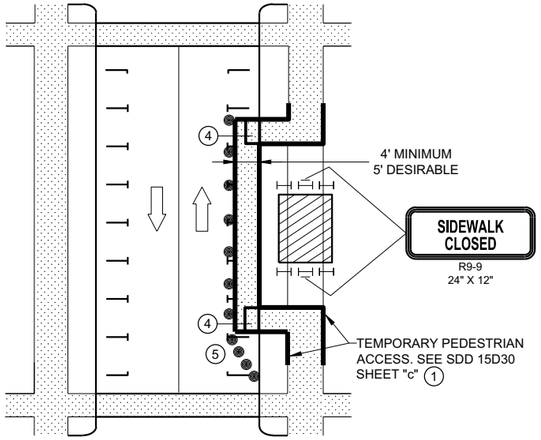
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

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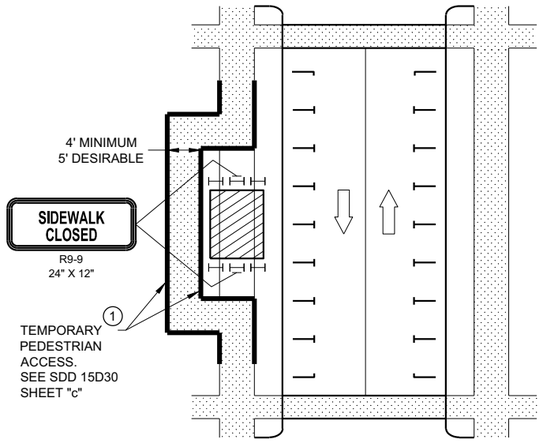
S.D.D. 15 D 27-3

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

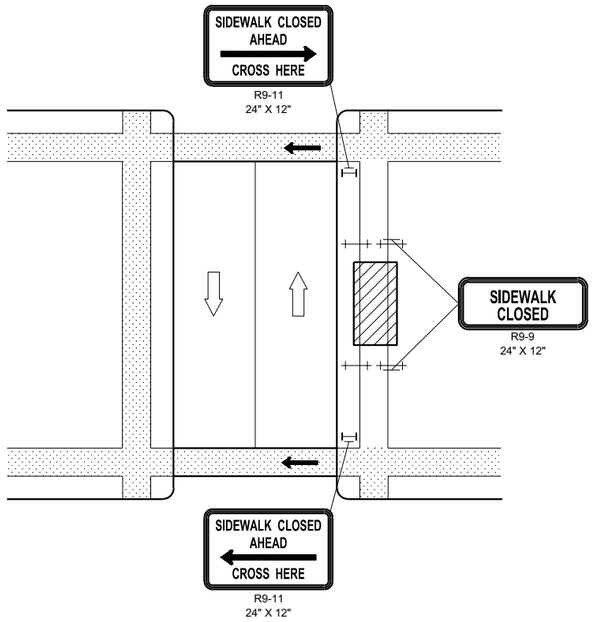


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

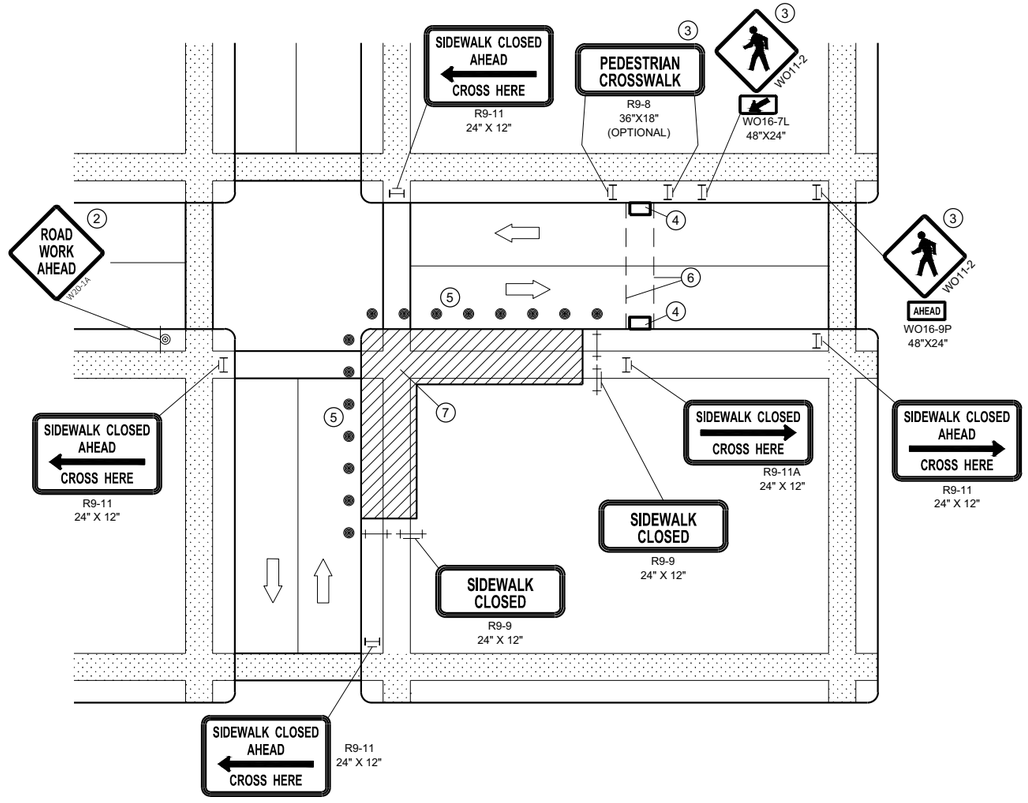
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

"WO" SIGN IS THE SAME AS "W" SIGN, EXCEPT THE BACKGROUND IS ORANGE.

FOR NIGHTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEK LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

1. IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE
2. "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
3. IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
4. TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b'.
5. DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
6. TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
7. LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

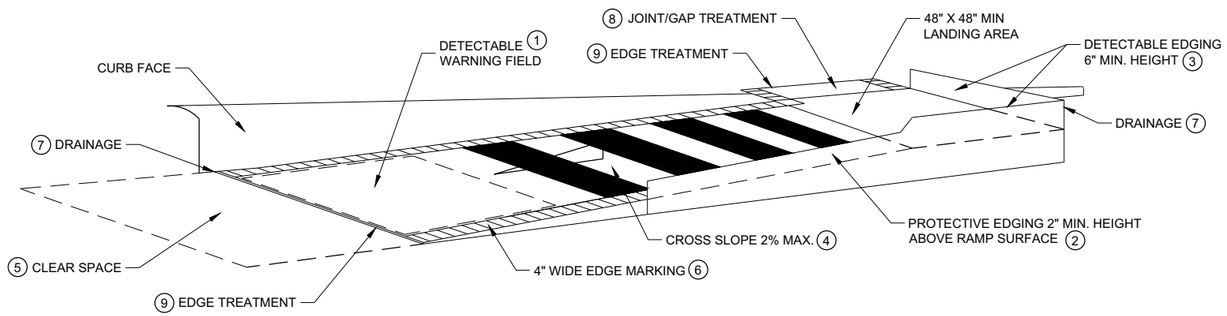
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

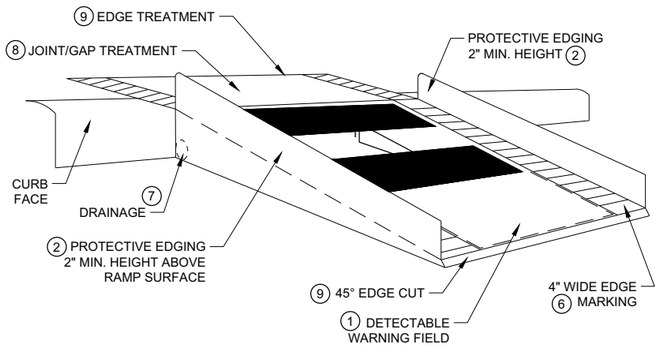
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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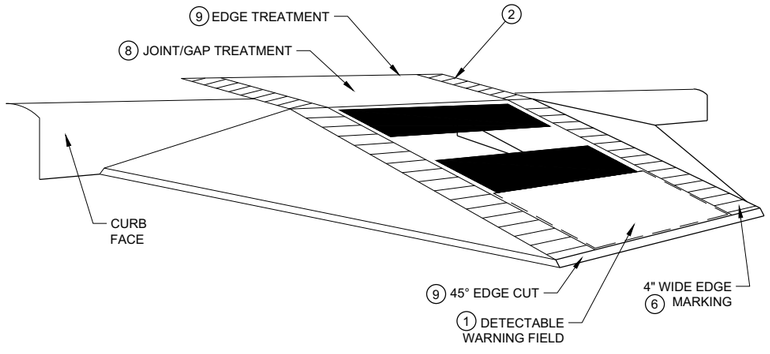
SDD15D30 - 06a



TEMPORARY CURB RAMP PARALLEL TO CURB



WITH PROTECTIVE EDGE



WITH SIDE APRON

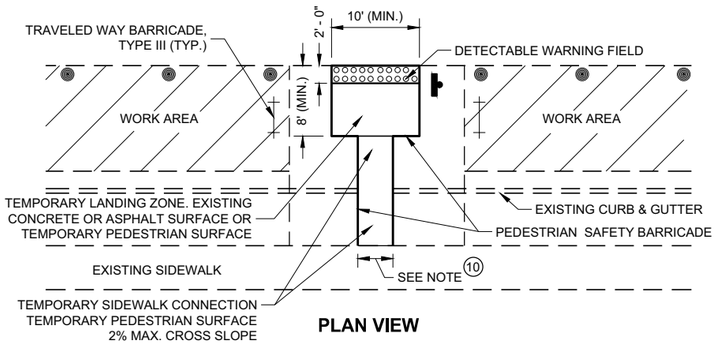
TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

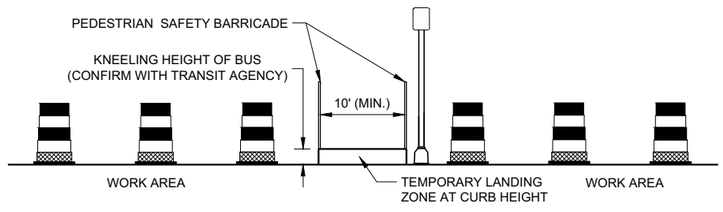
NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

1. CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "e".
2. PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
5. CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
6. THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
7. DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES SHALL BE VERTICAL UP TO ¼" HIGH AND BEVELED AT 1:2 BETWEEN ¼" AND ½".
10. 5" WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.



PLAN VIEW



PROFILE VIEW

TEMPORARY BUS STOP PAD

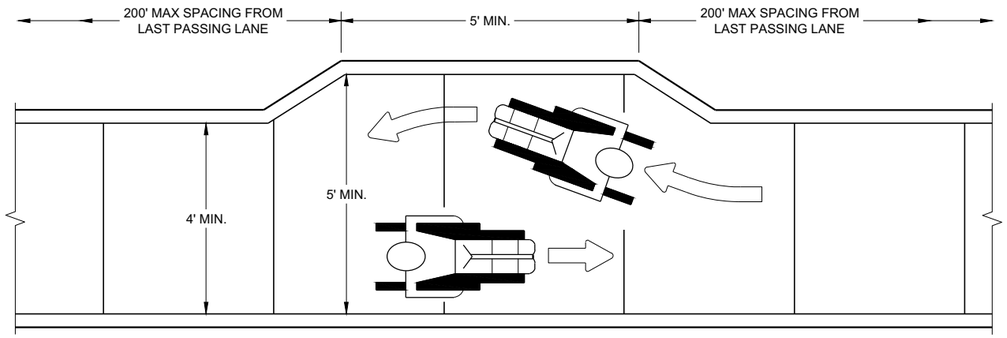
LEGEND

- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- WORK AREA

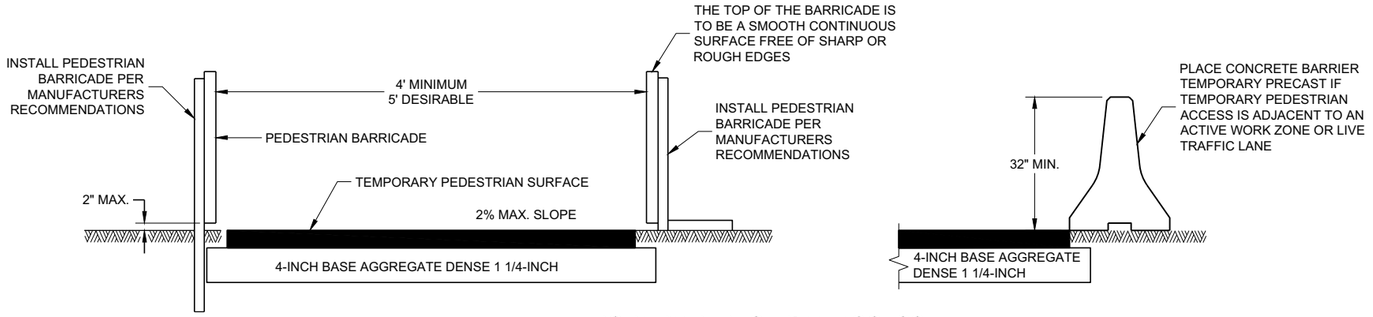
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

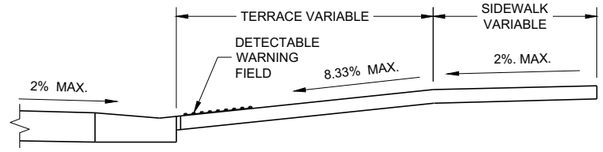
SDD 15D30 - 06b



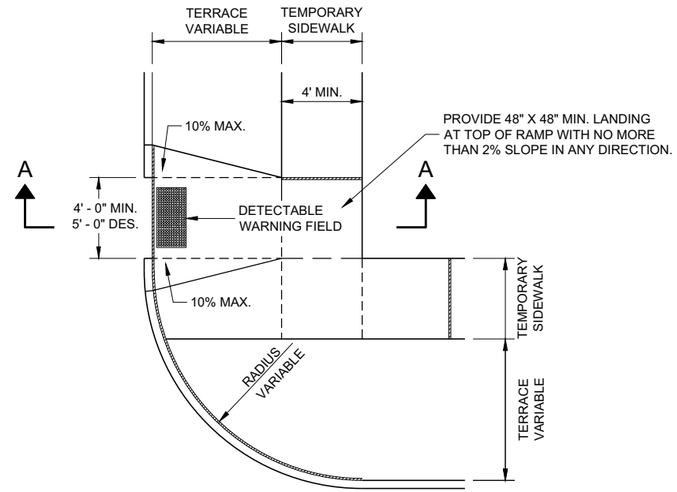
NARROW SIDEWALK PASSING DETAIL



TEMPORARY PEDESTRIAN ACCESS



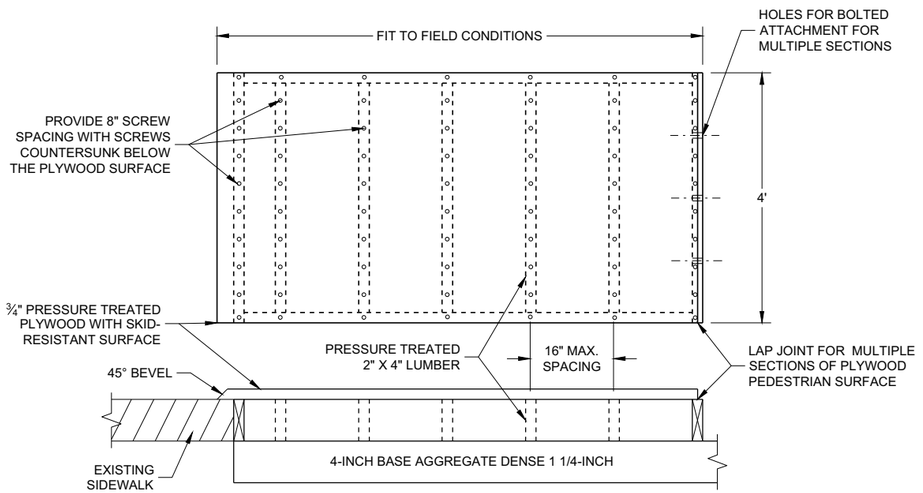
SECTION A - A



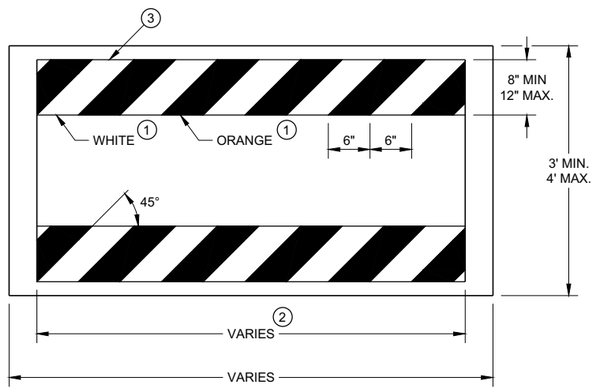
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



TEMPORARY PEDESTRIAN BARRICADE *

GENERAL NOTES

BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15D30 - 06c

6

SDD 15D30 - 06c

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER (L/2) FEET
25	200	60
30	200	90
35	350	120
40	350	160
45	500	270
50	500	300
55	500	330

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"x36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

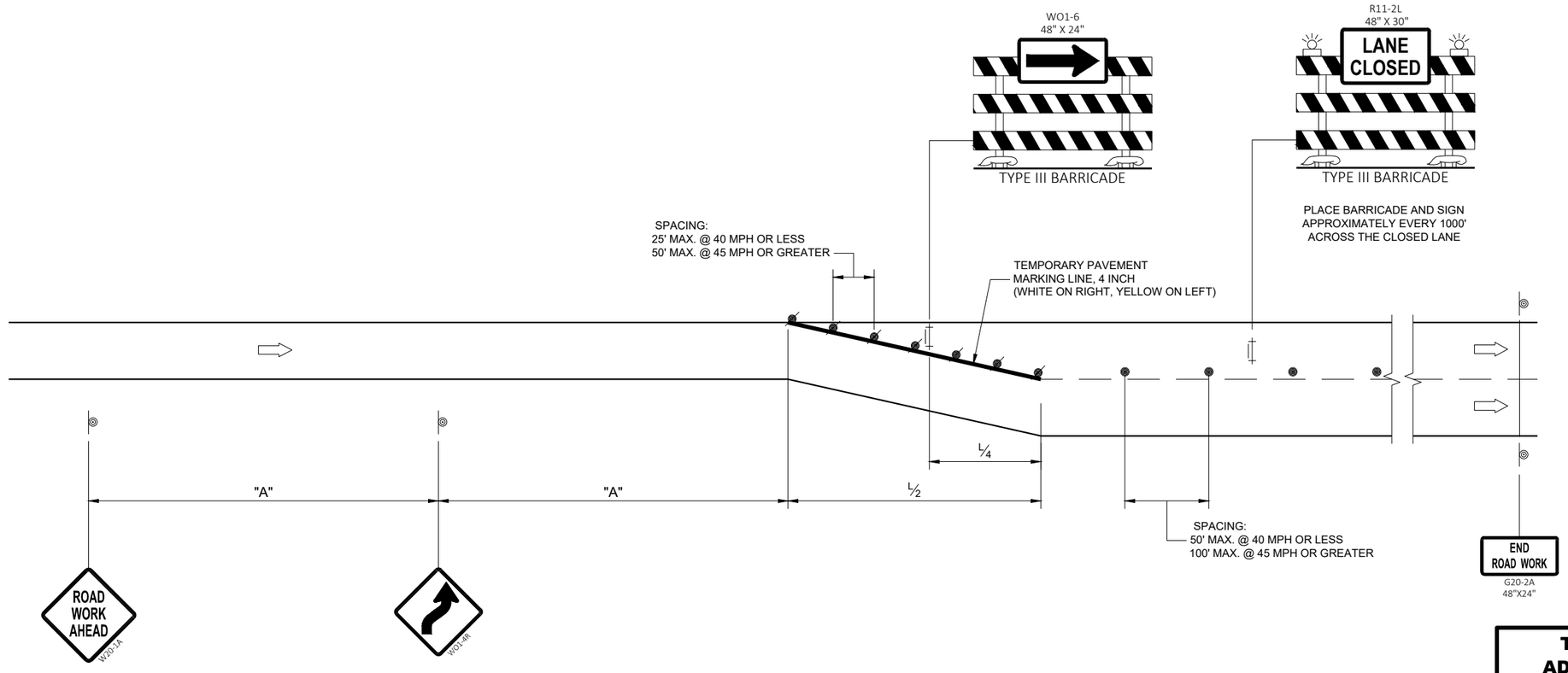
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION WORK IS LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS.

PLACE TEMPORARY PAVEMENT MARKING AND PLACE TEMPORARY PAVEMENT LINE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.



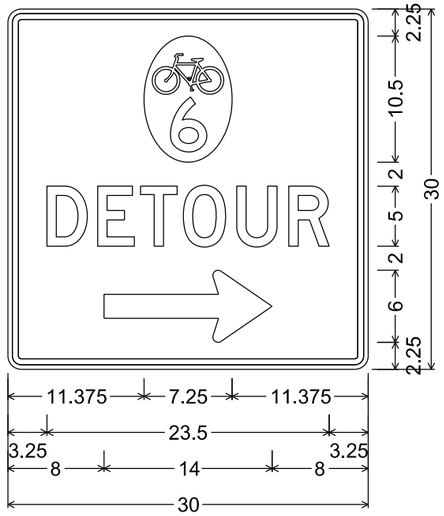
TRAFFIC CONTROL, ADDED LANE CLOSURE WITH LANE SHIFT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

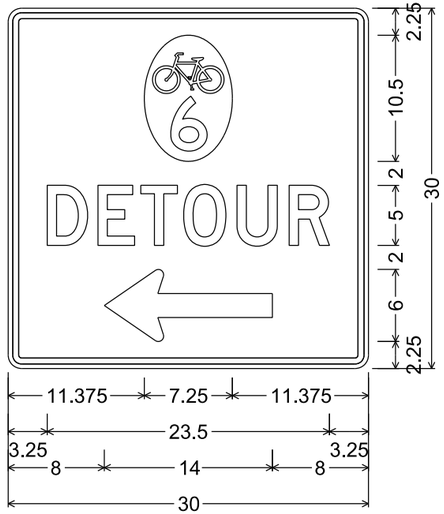
APPROVED
February 2022 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6

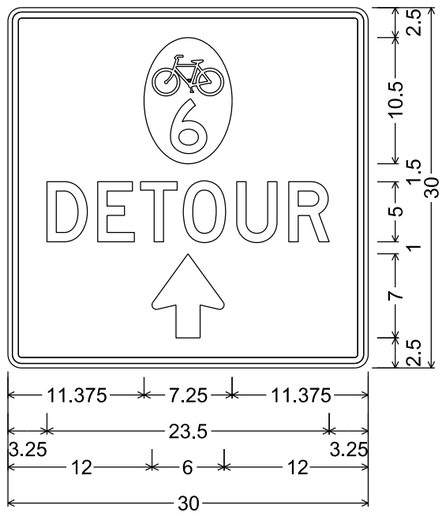
SDD15D50 - 02b



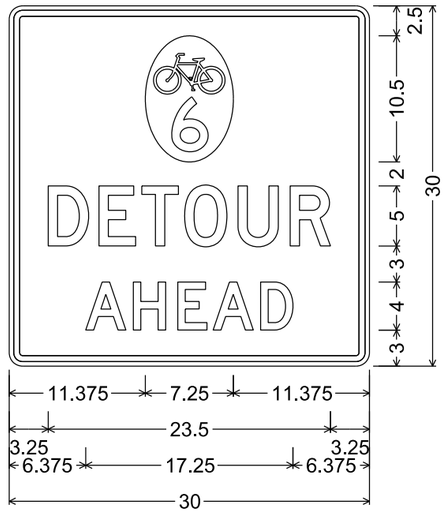
1.125" Radius, 0.500" Border, 0.375" Indent



1.125" Radius, 0.500" Border, 0.375" Indent



1.125" Radius, 0.500" Border, 0.375" Indent

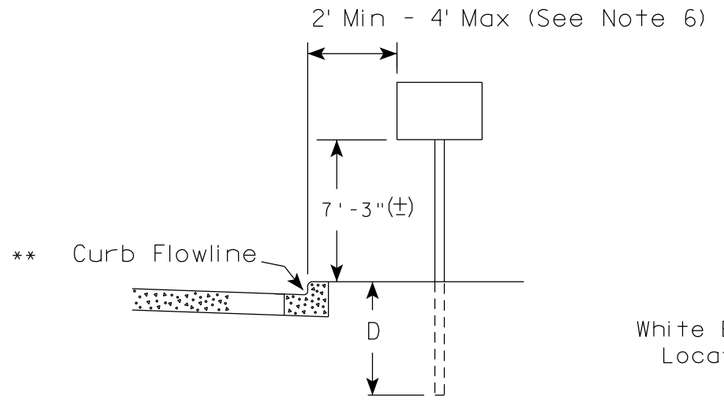


1.125" Radius, 0.500" Border, 0.375" Indent

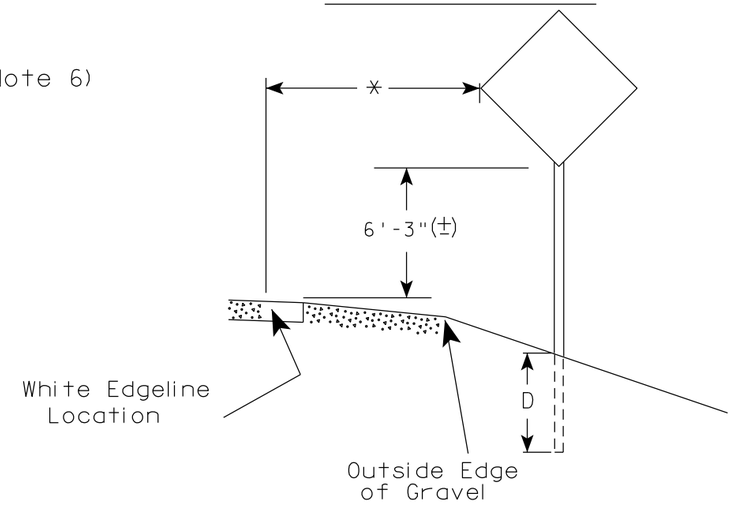
NOTES

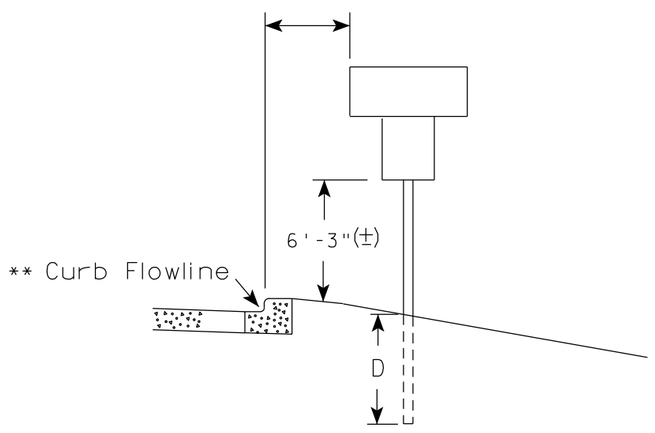
1. Fixed Message Signs - Type II Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D

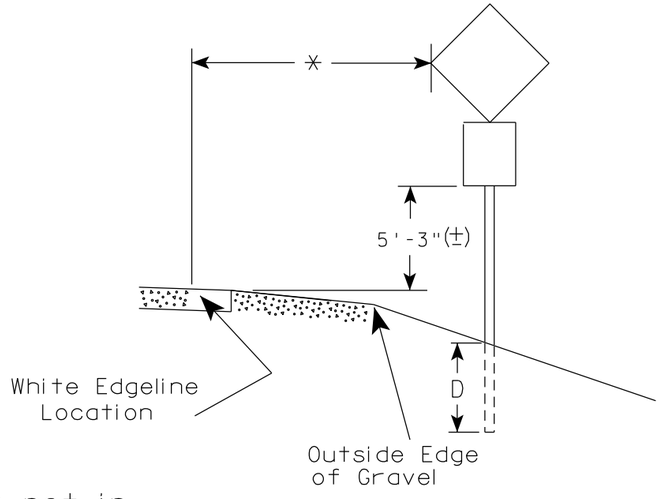
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

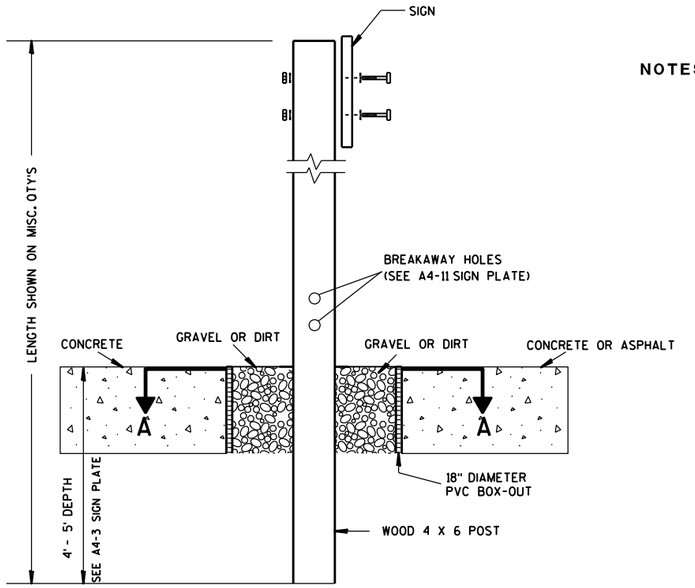
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

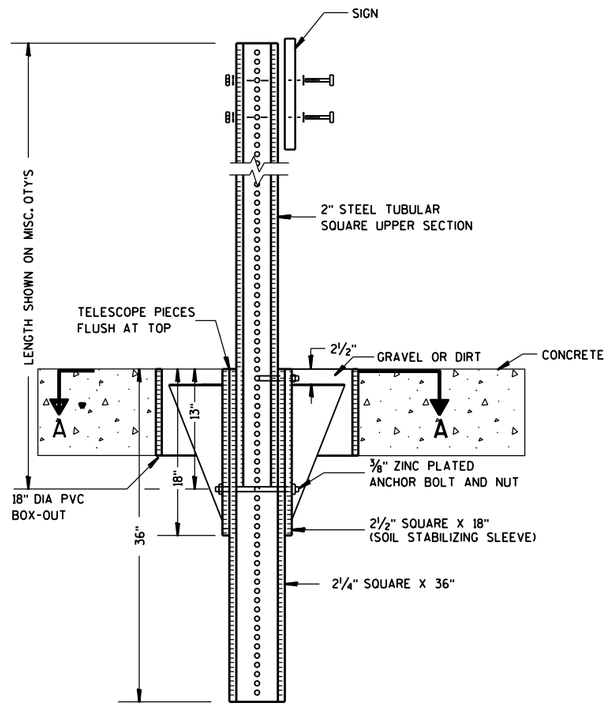
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 134	E



ELEVATION VIEW

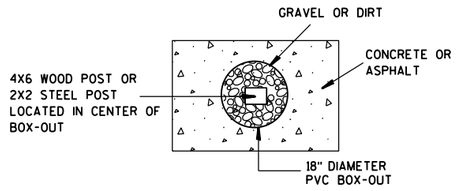
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

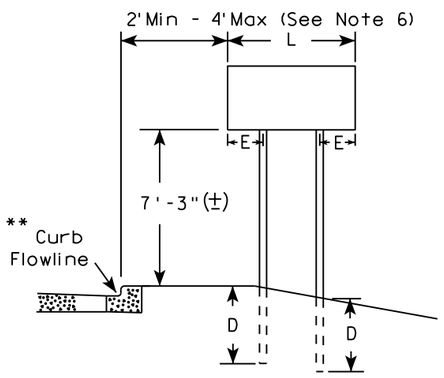
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

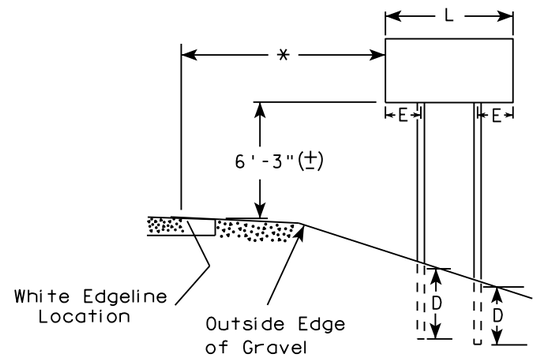
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

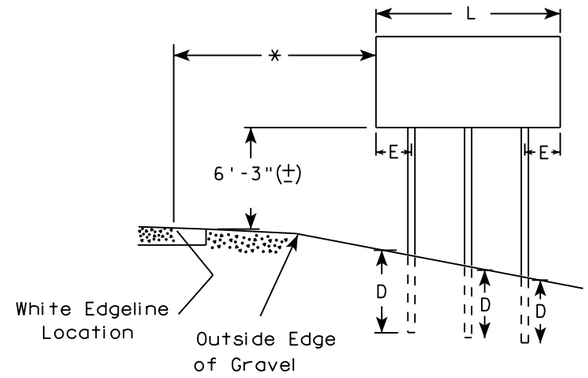
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

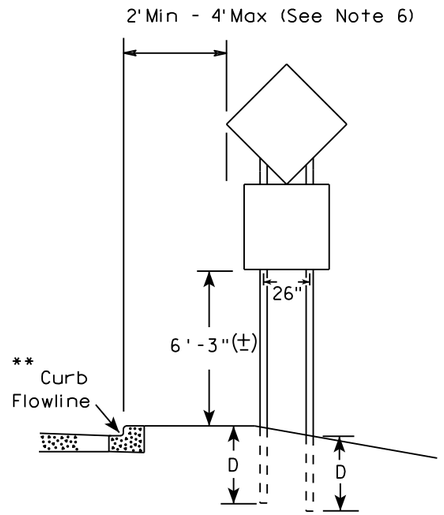
URBAN AREA



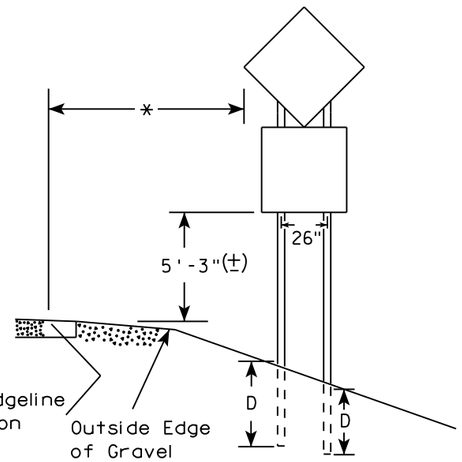
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

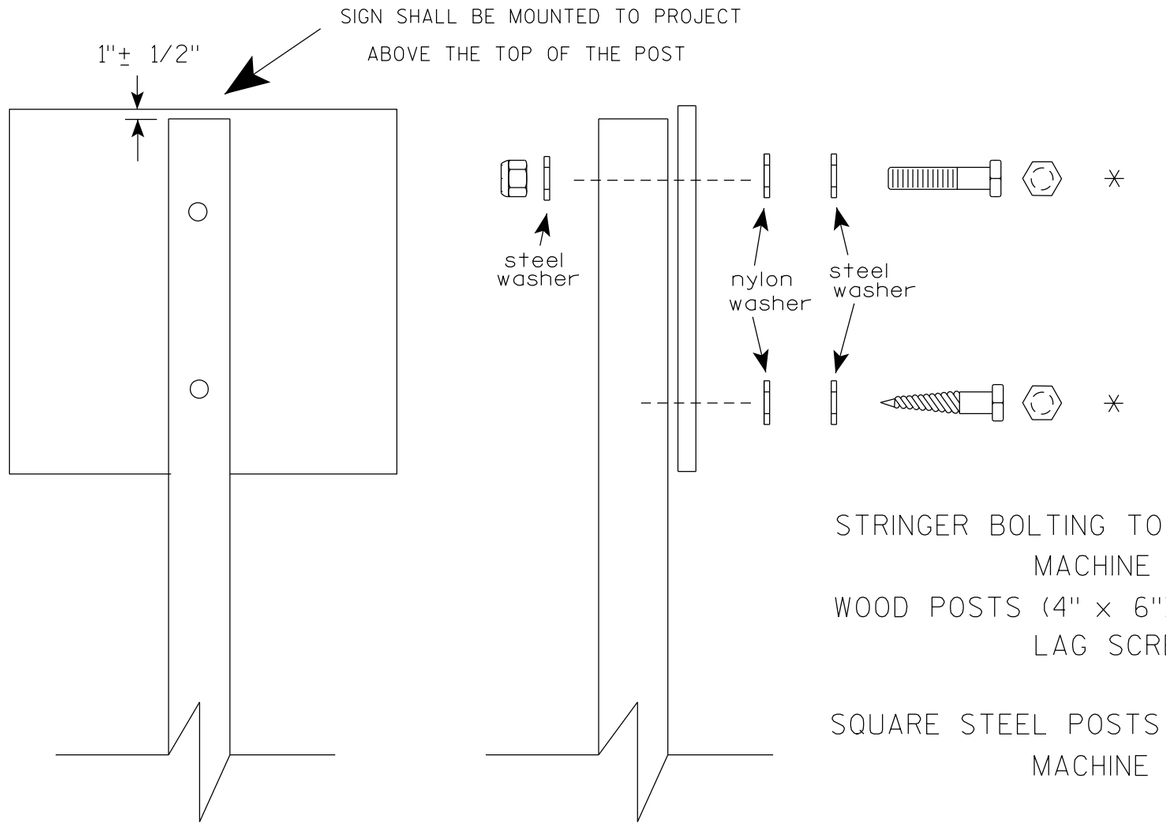
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 136	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

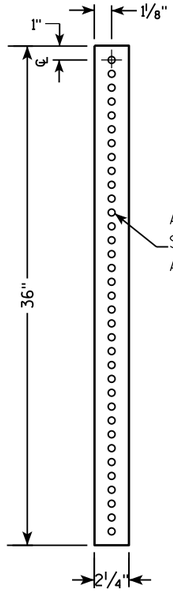
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

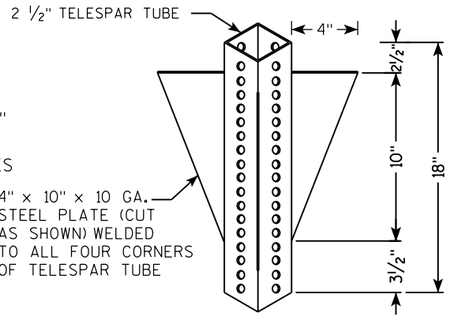
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

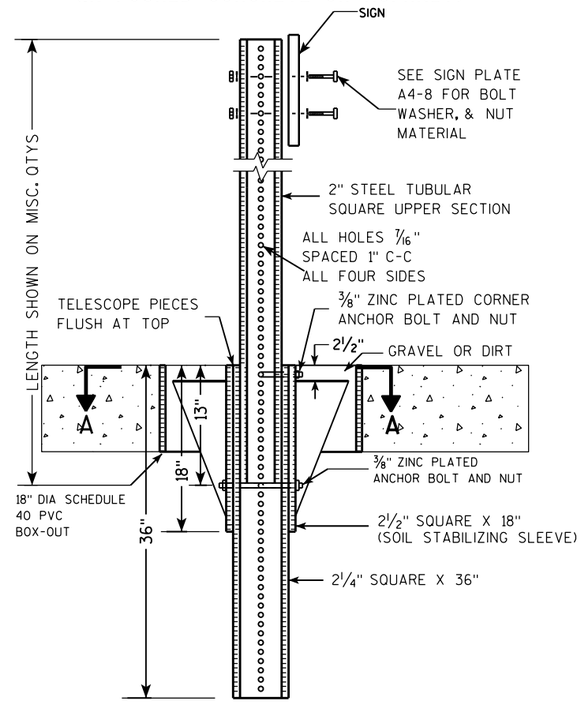
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



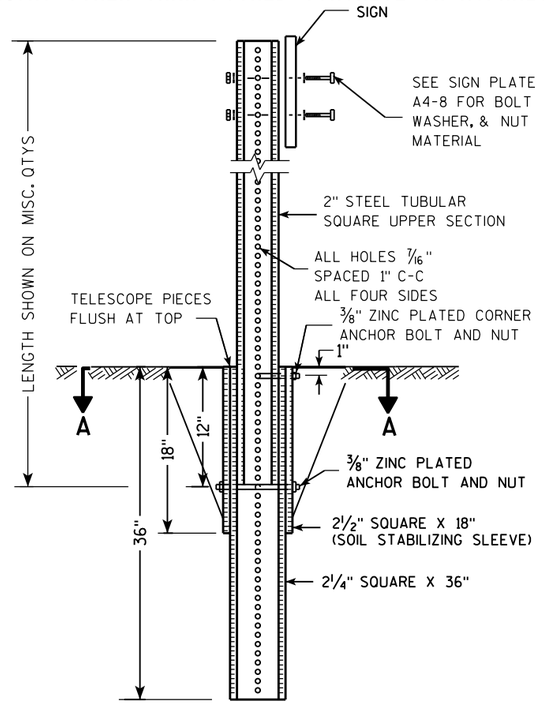
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

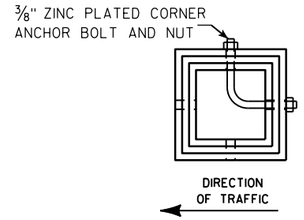


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

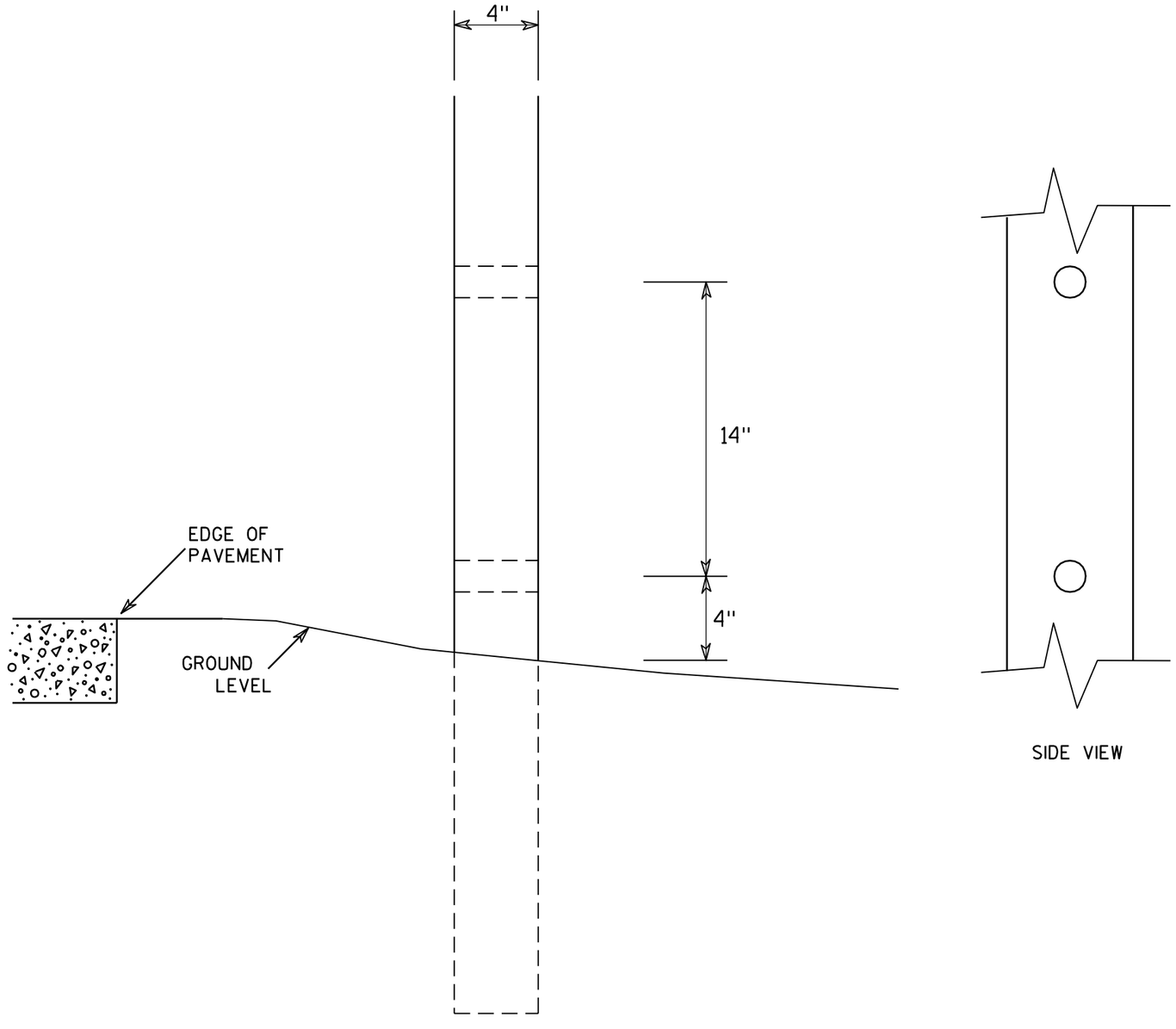
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000
WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

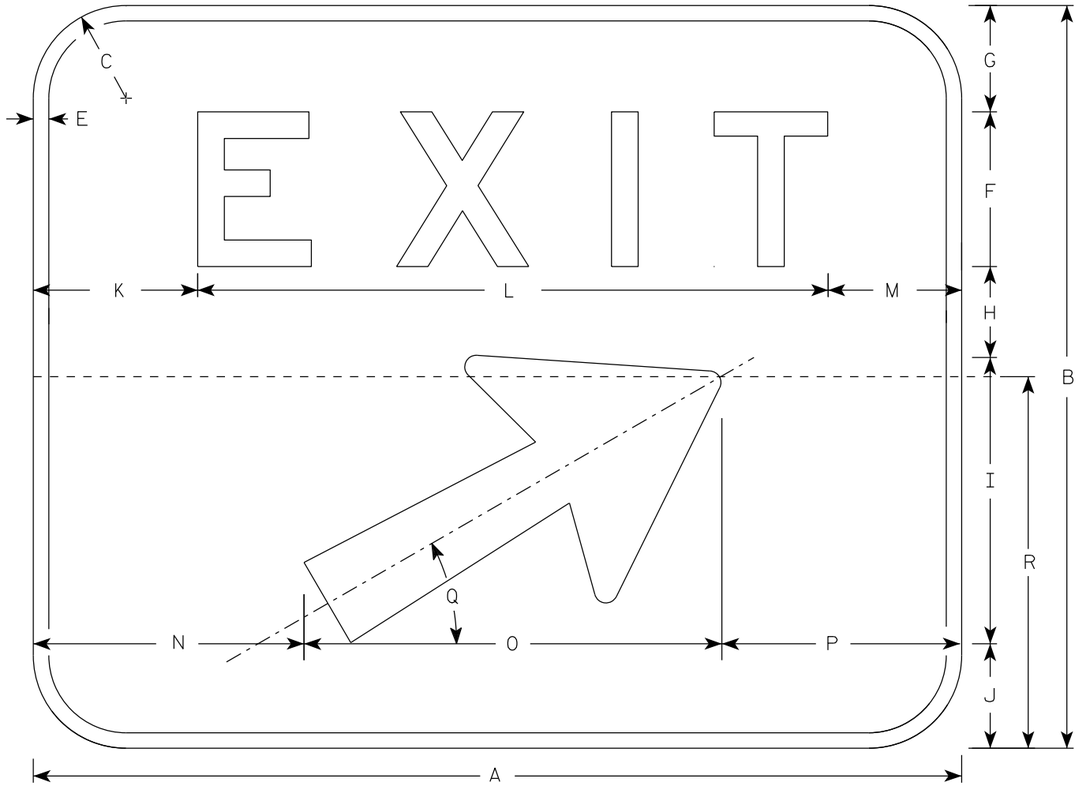
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 139	E



E5-1

NOTES

1. Sign is Type II - Type H reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. When Base material for this sign is plywood sign shall be split into two seperate pieces for the 72 x 60 size as shown on the detail by the dashed line (----------).
6. Arrow is Type "A" from sign plate A1-1.
7. As per the Standard Spec's, this sign shall not have a vertical joint.
8. Size 3 E5-1 shall only be used in a Work Zone application with a Temporary Sign Support

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3	48	48	6		1	10	6 7/8	5 7/8	18 1/2	6 3/4	8 1/2	31 1/8	8 3/8	11 1/2	27	9 1/2	30°	30									16.0
4	60	48	6		1	10	6 7/8	5 7/8	18 1/2	6 3/4	10 5/8	40 3/4	8 5/8	17 1/2	27	15 1/2	30°	30									20.0
5	72	60	6		1	12	9 3/4	10	18 1/2	9 3/4	13 1/4	48 1/2	10 1/4	23 1/2	27	21 1/2	30°	30									30.0

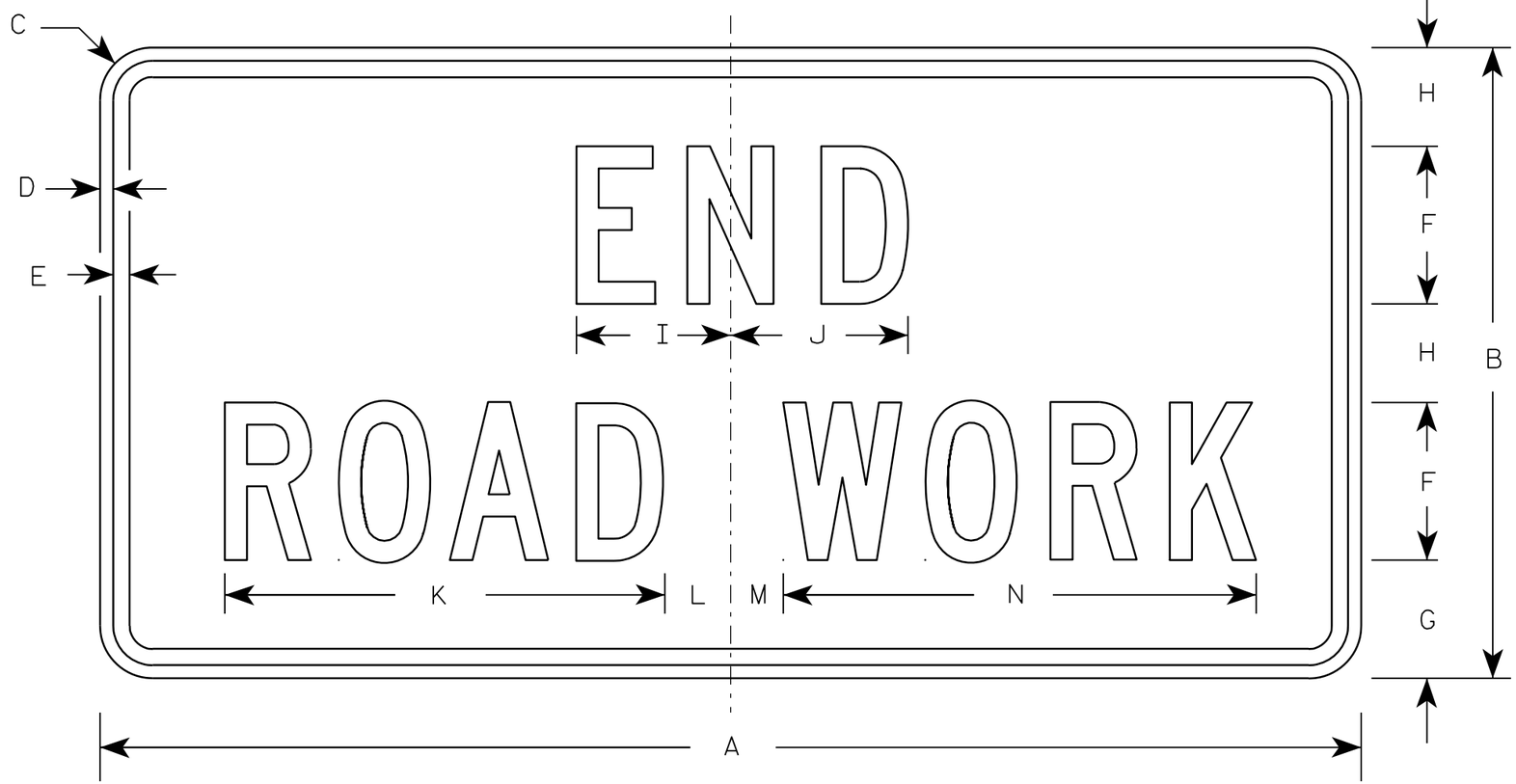
STANDARD SIGN
E5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/26/18 PLATE NO. E5-1.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 140 | E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

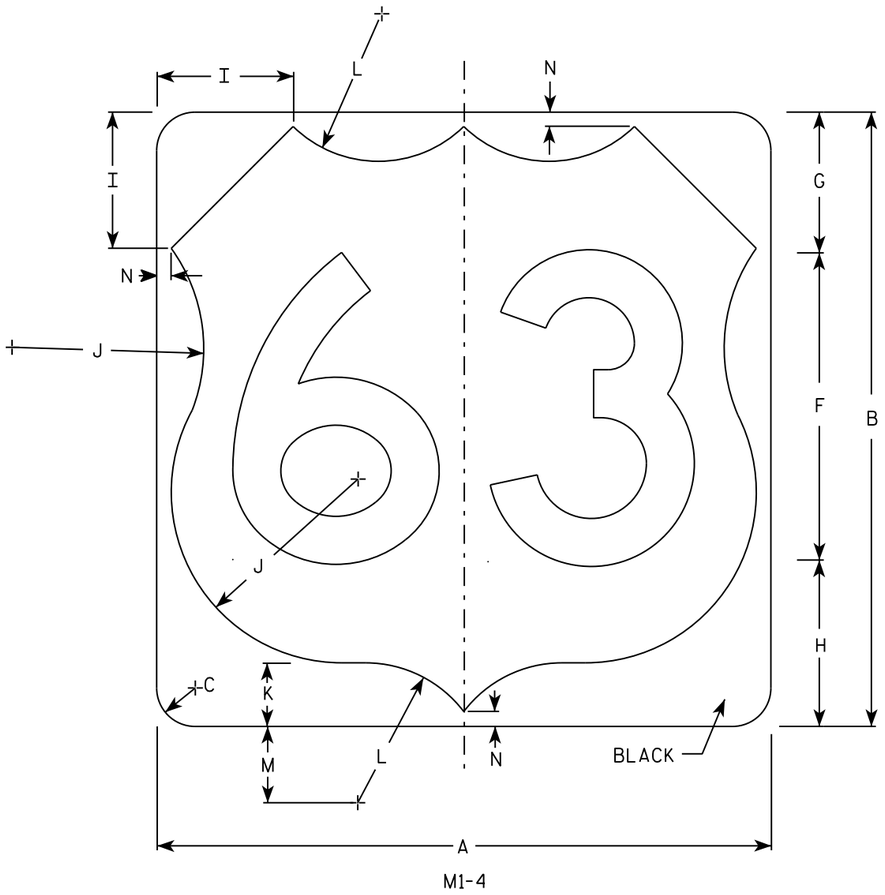
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

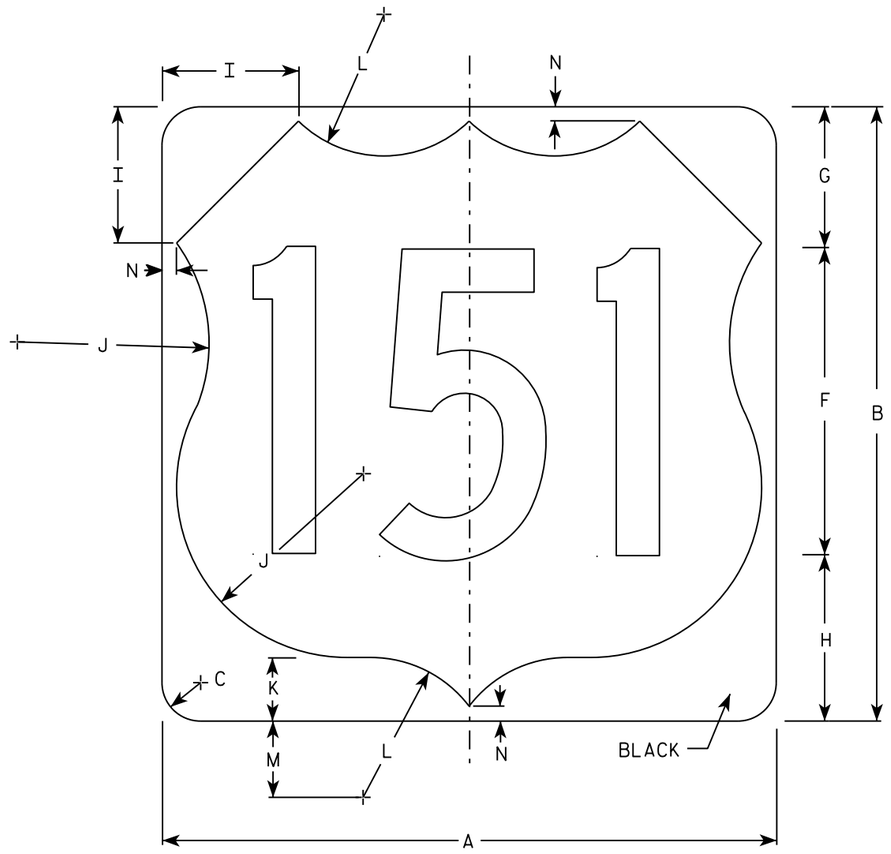
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 141	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



M1-4



M1-4

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area Sq. ft.
1																											
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0

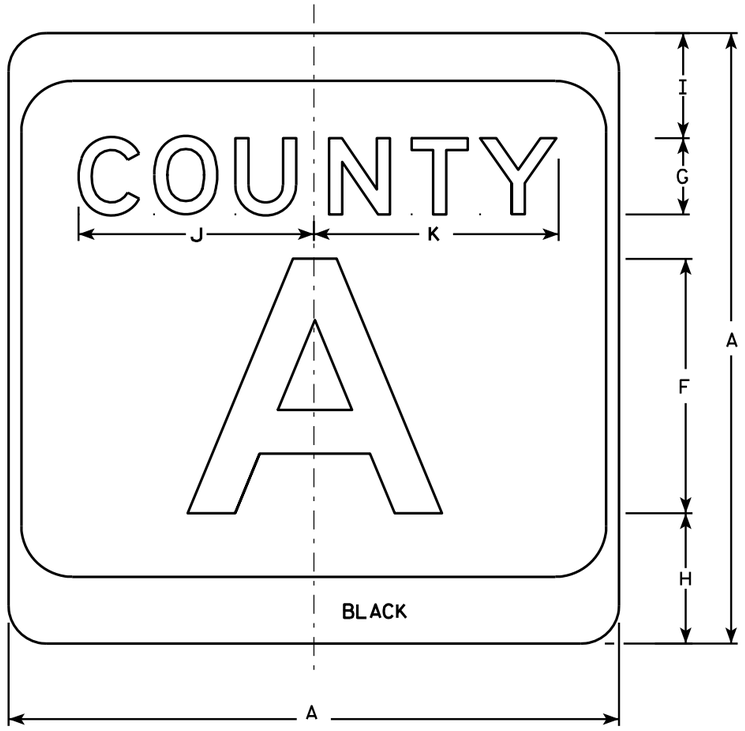
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

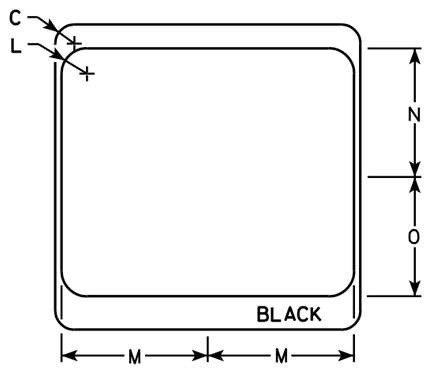
APPROVED Matthew R Rauch
for State Traffic Engineer

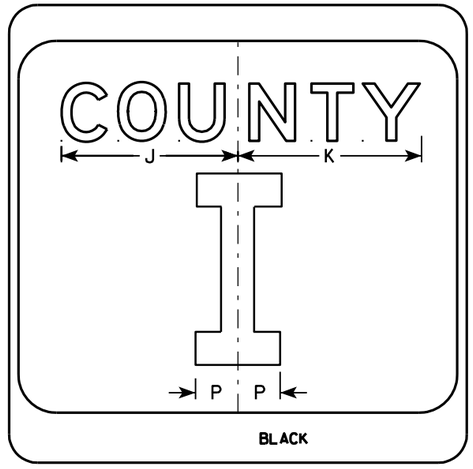
DATE 3/16/18 PLATE NO. M1-4.10

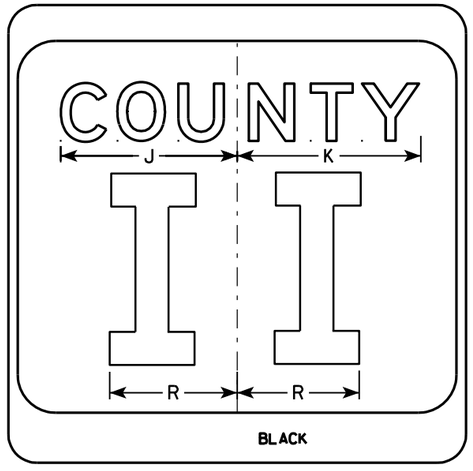
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 142 | E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

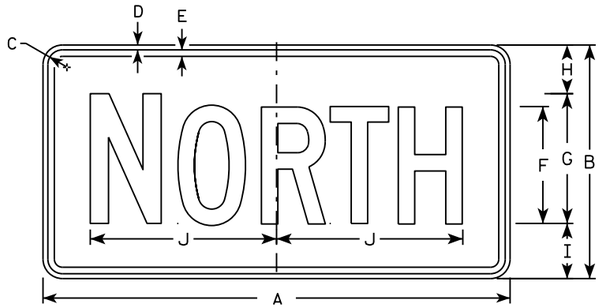
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

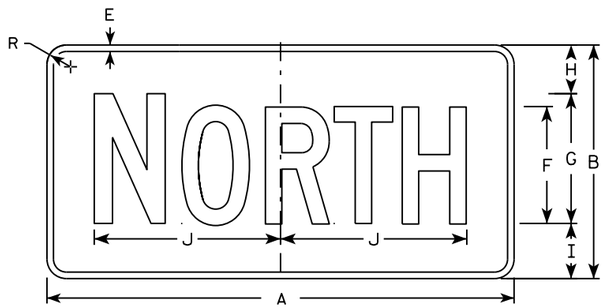
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 143 | E



M3-1
MM3-1
MP3-1



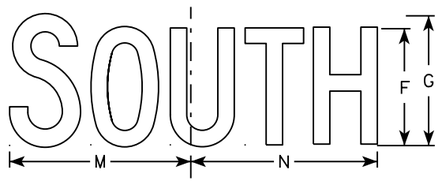
MB3-1
MK3-1
MN3-1



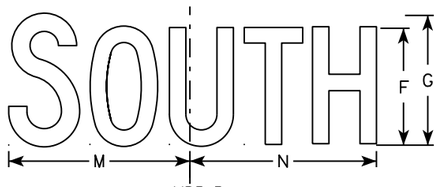
M3-2
MM3-2
MP3-2



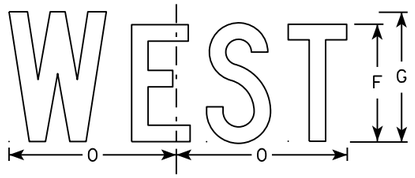
MB3-2
MK3-2
MN3-2



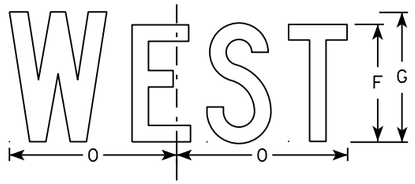
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

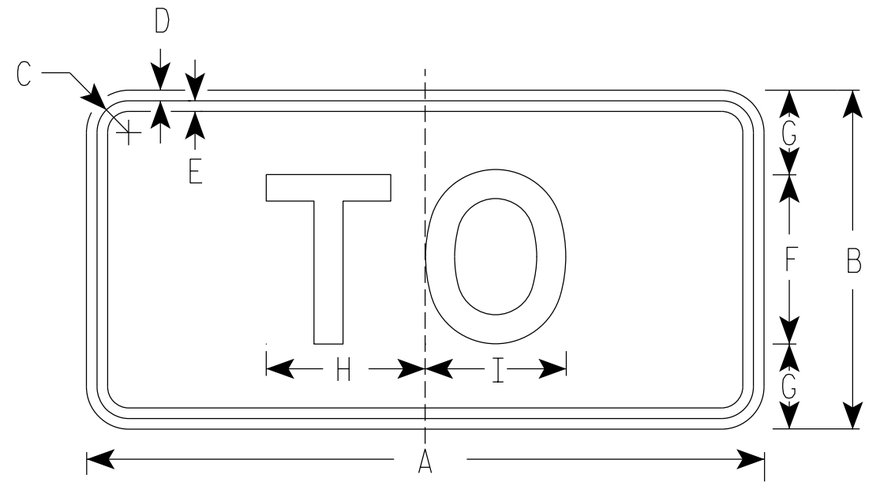
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

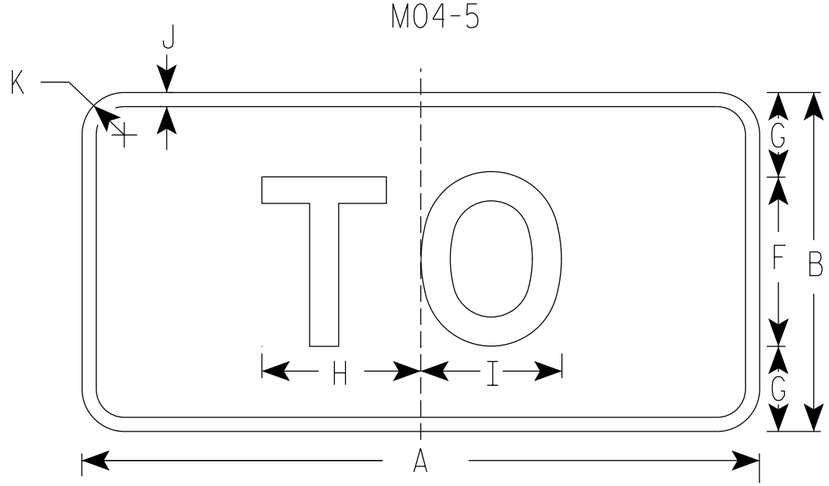
DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-5
MM4-5
MP4-5
M04-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

   MP4-5 Background - White
   Message - Blue

   M04-5 Background - Orange Type F Reflective
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

STANDARD SIGN
M4-5

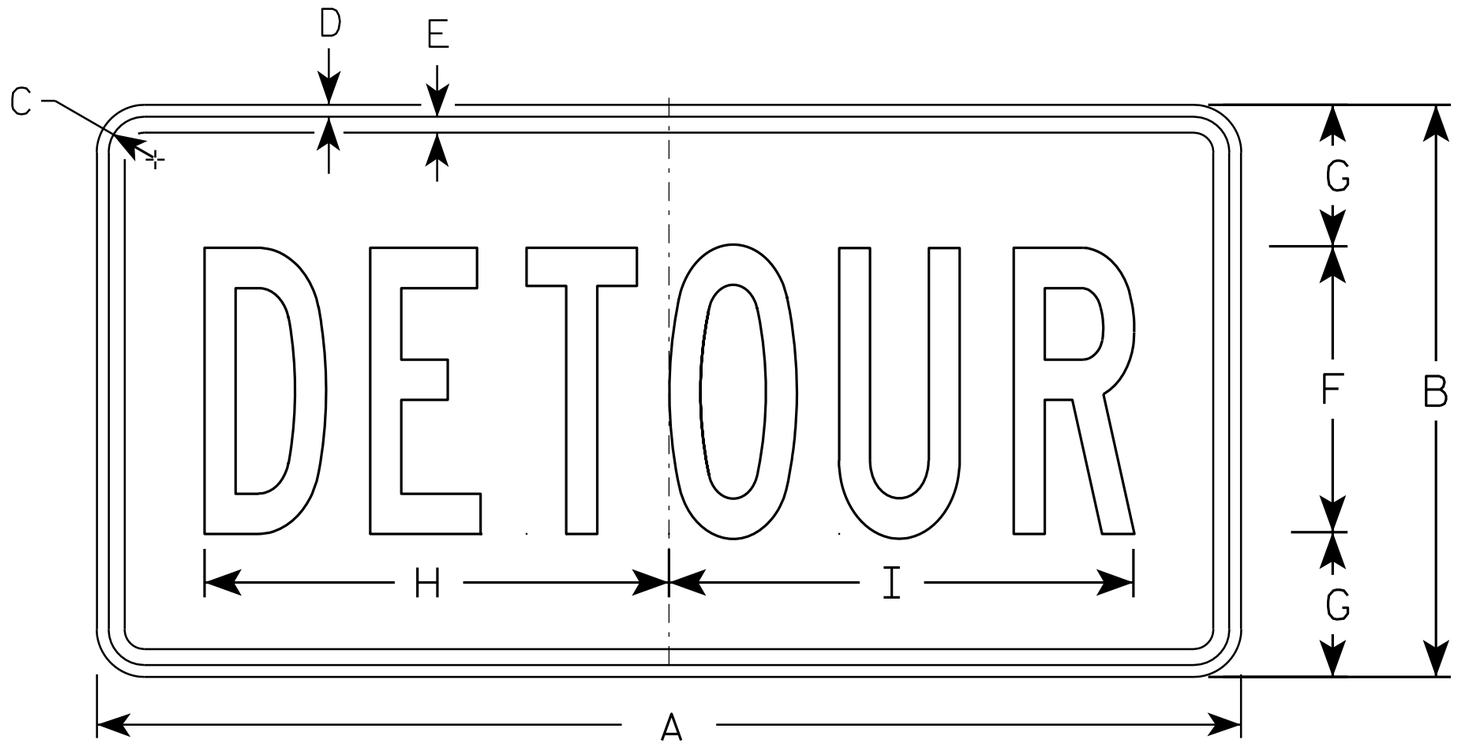
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/7/19 PLATE NO. M4-5.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 145 | E

7



M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

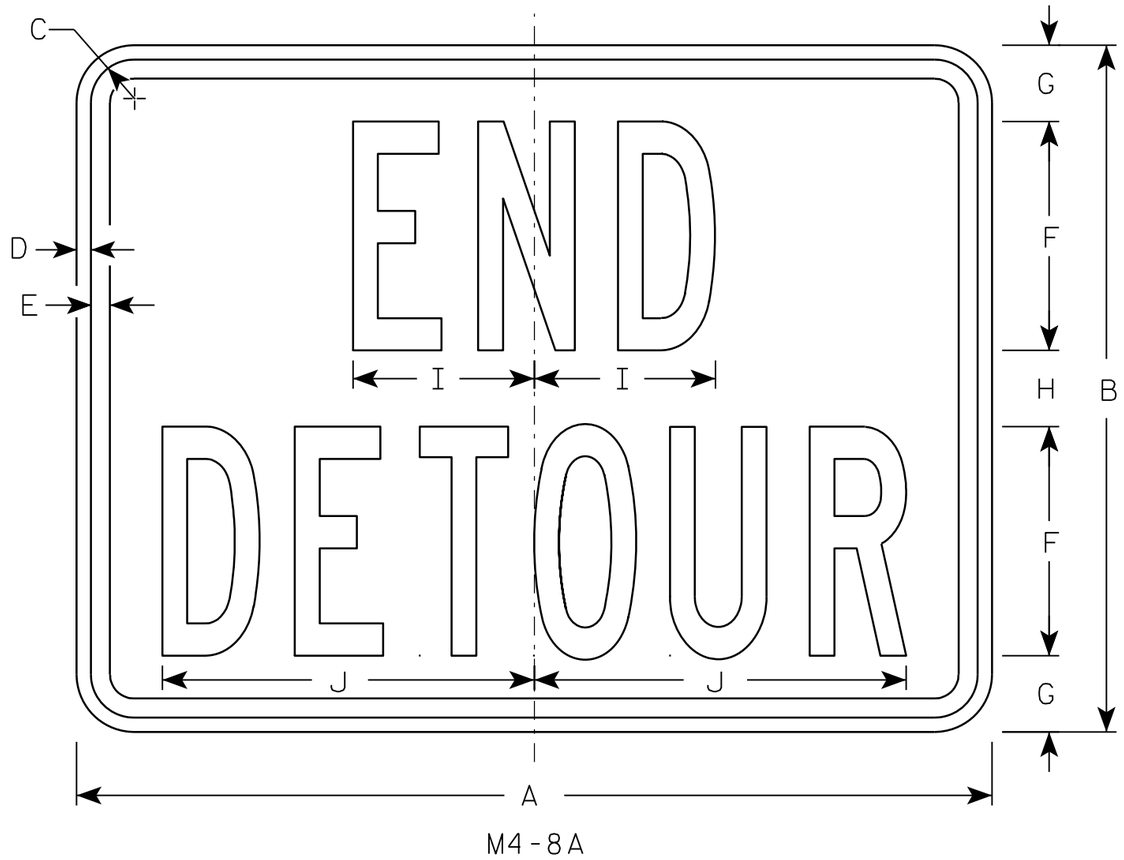
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 146	E



M4-8A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

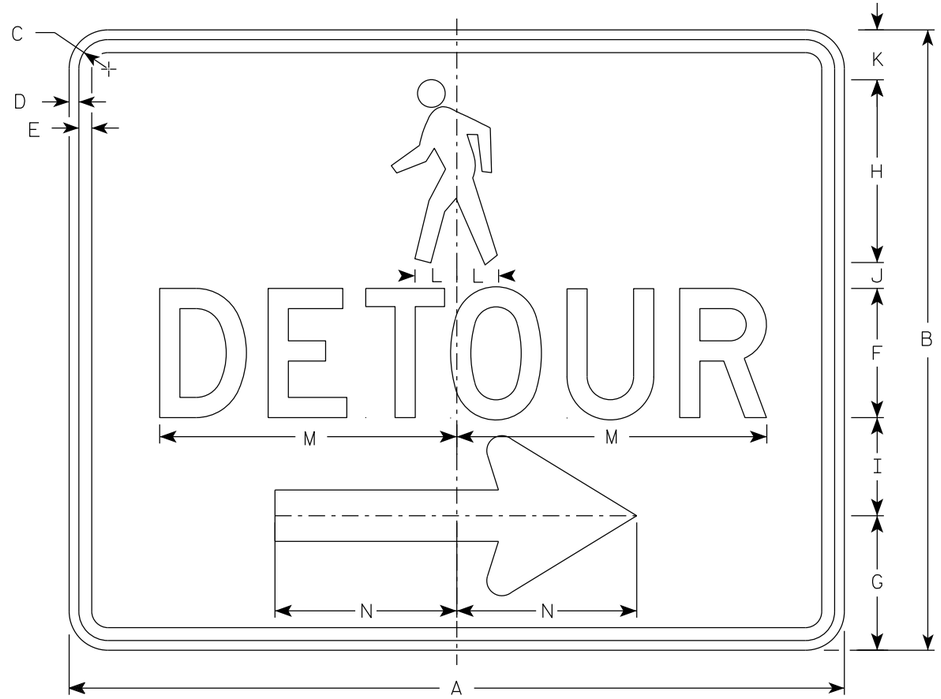
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

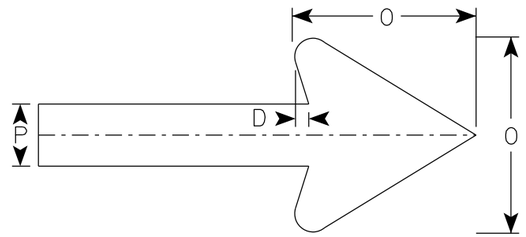
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 147	E



M4-9BR

NOTES

1. Sign is Type II-Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9BL is the same as M4-9BR except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.00
3																											
4																											
5																											

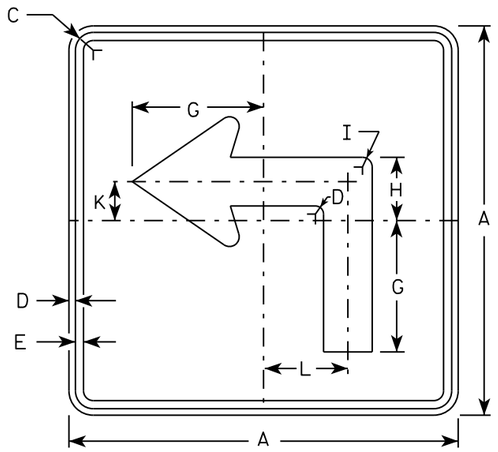
STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

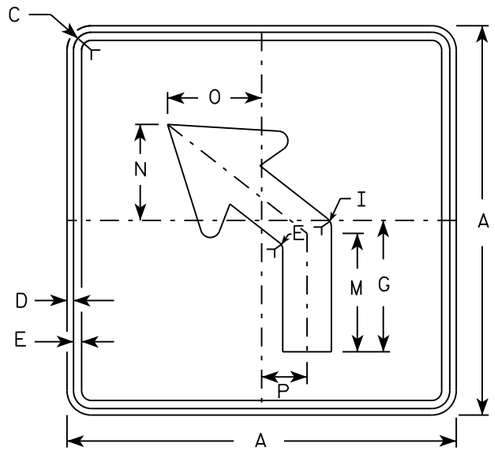
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 7/1/19 PLATE NO. M4-9B.2

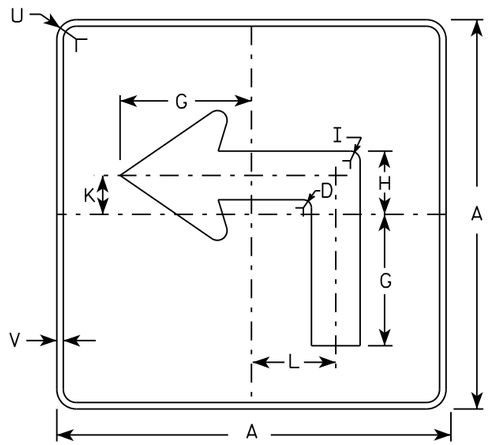
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 148 | E



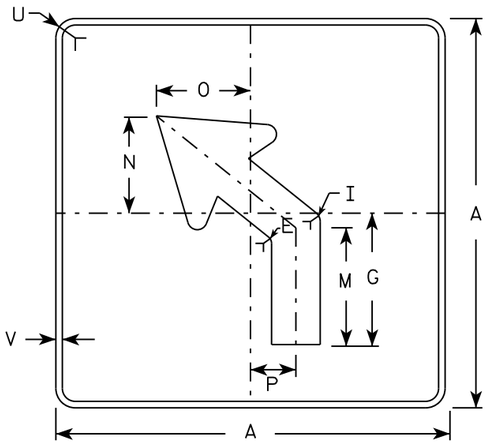
M5-1L
MM5-1L
MO5-1L
MP5-1L



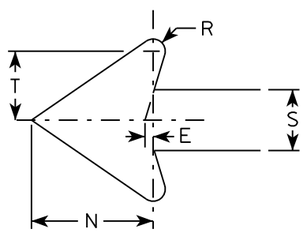
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

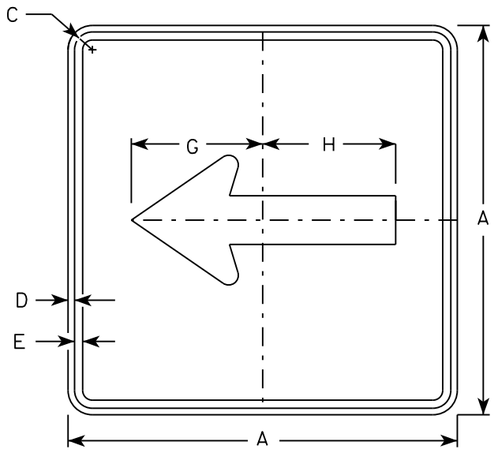
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

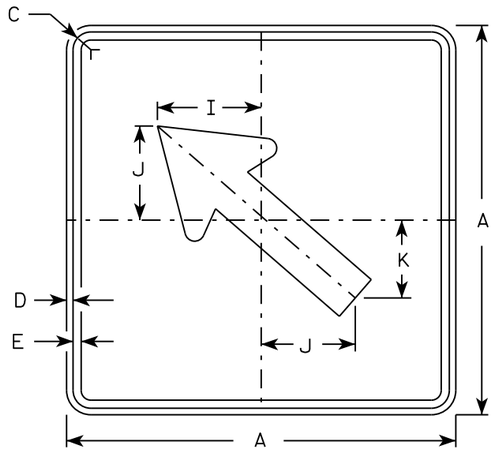
DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



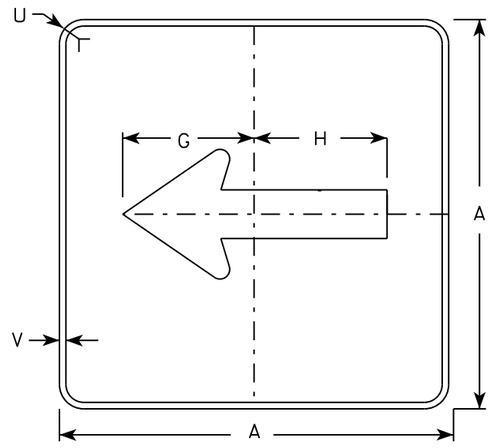
M6-1
MM6-1
MO6-1
MP6-1



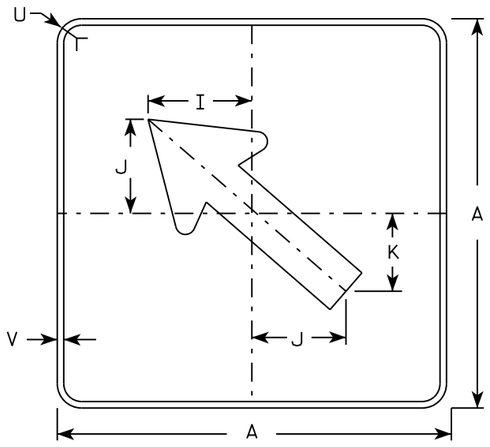
M6-2
MM6-2
MO6-2
MP6-2

NOTES

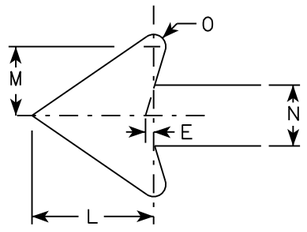
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN M6-1 & M6-2 SERIES

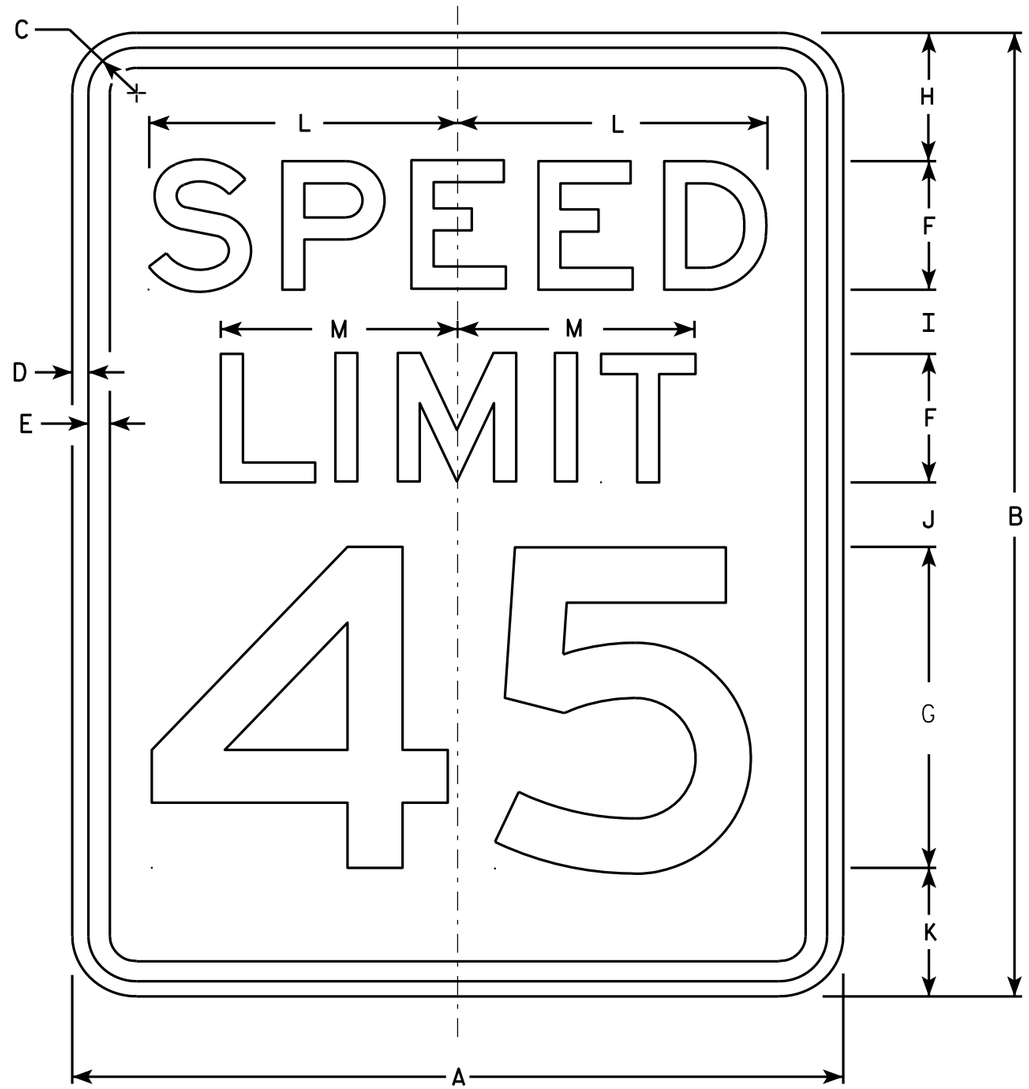
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 150 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

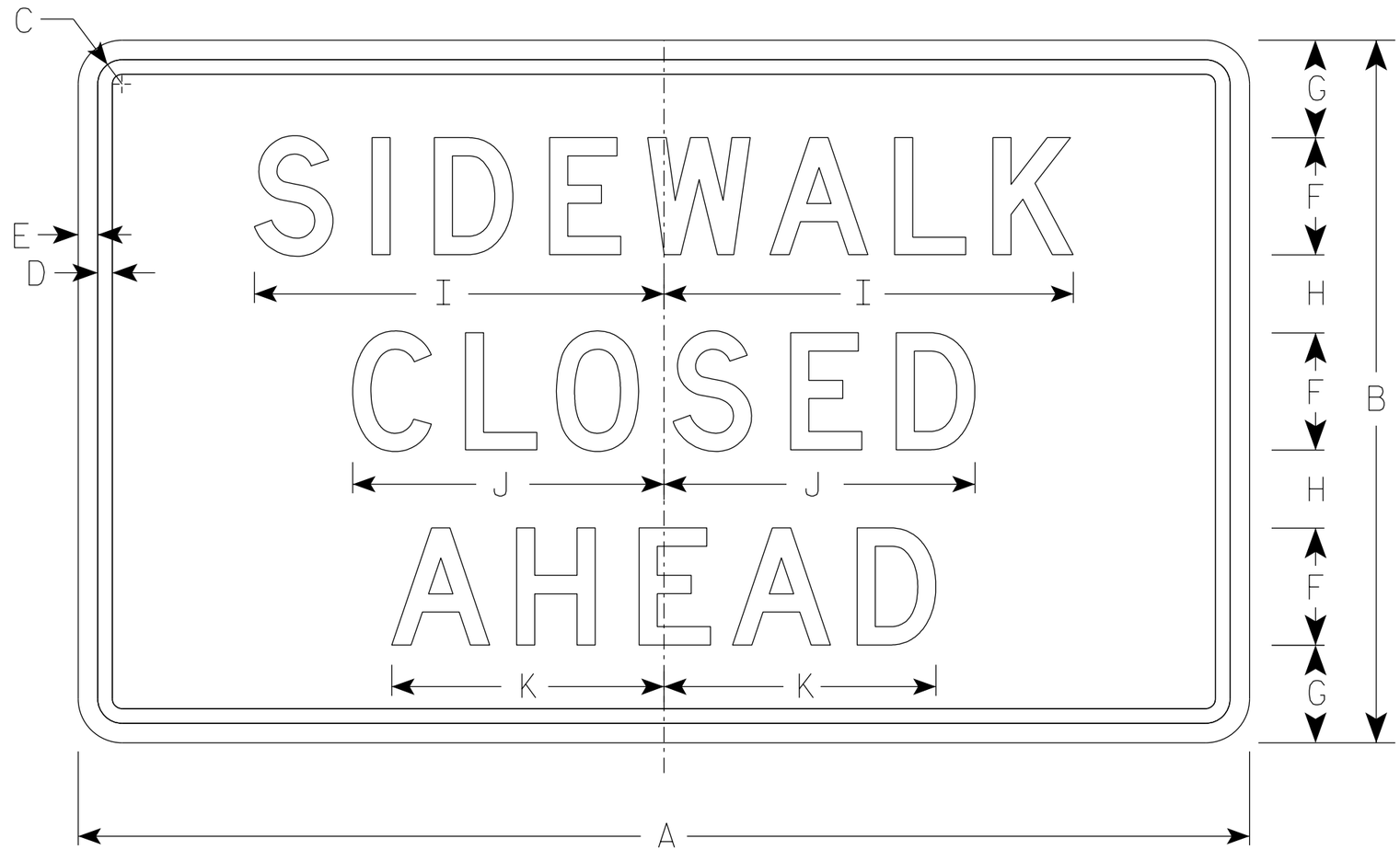
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 151 | E



R9-9A

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/8	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
2M	30	18	1 1/8	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
3																											
4																											
5																											

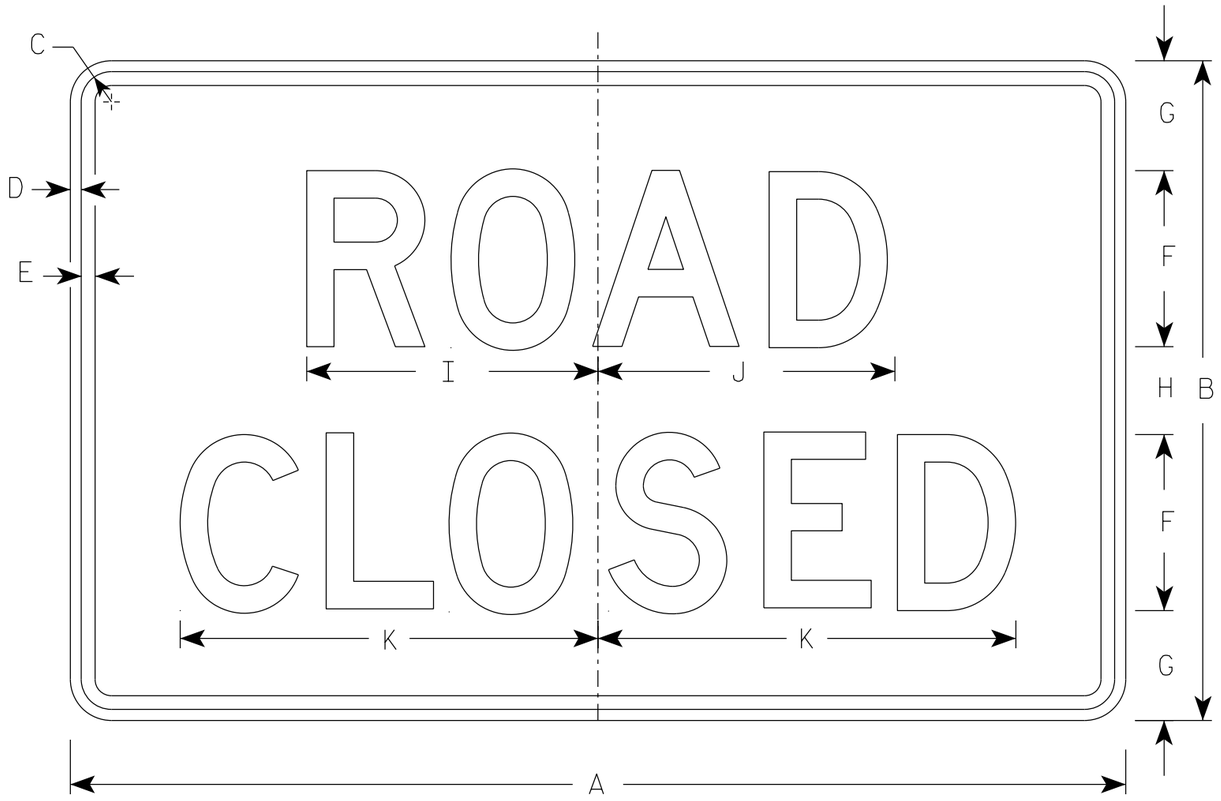
STANDARD SIGN
R9-9A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/31/2020 PLATE NO. R9-9A.1

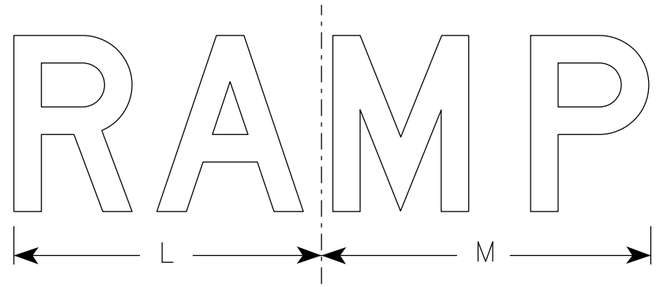
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 152 | E



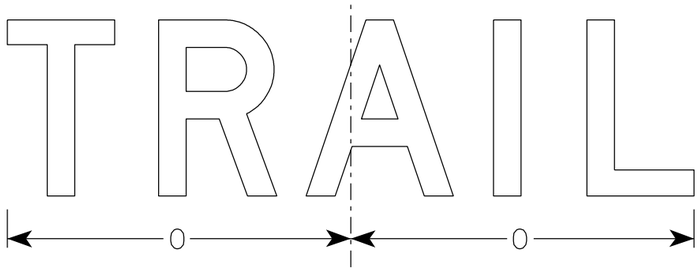
R11-2

NOTES

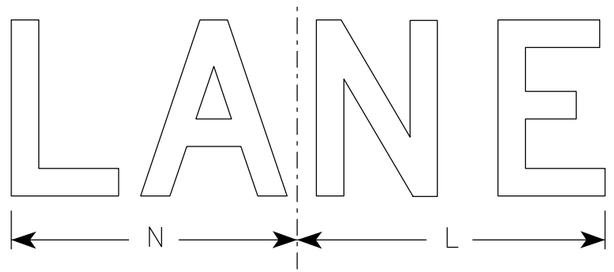
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2T



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

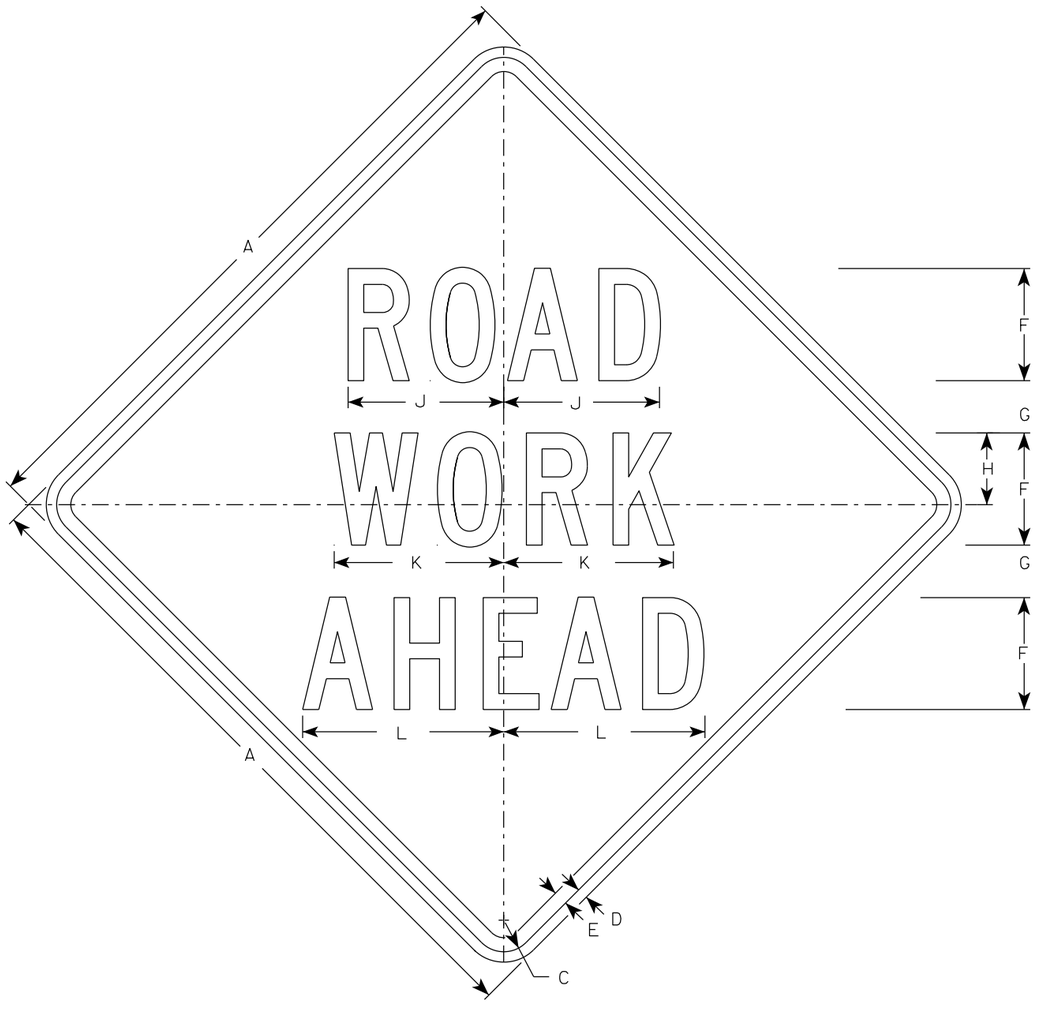
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

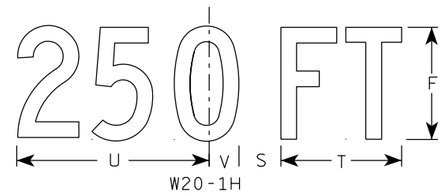
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

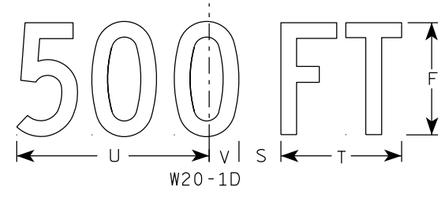
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 153	E



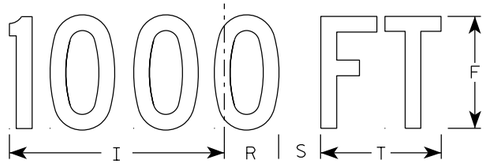
W20-1A



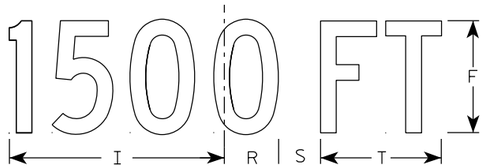
W20-1H



W20-1D



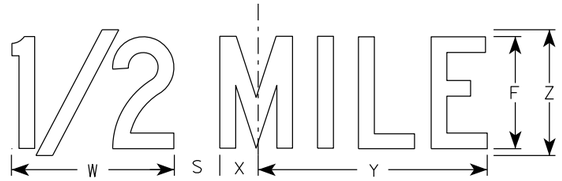
W20-1C



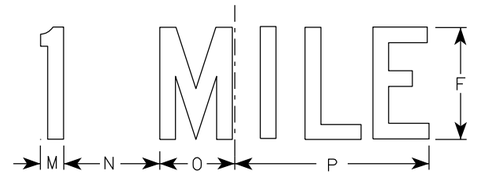
W20-1B

NOTES

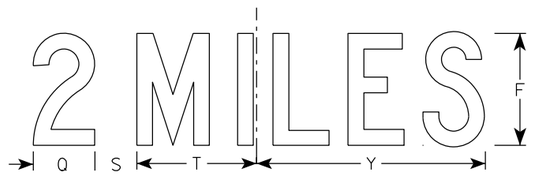
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11

PROJECT NO:

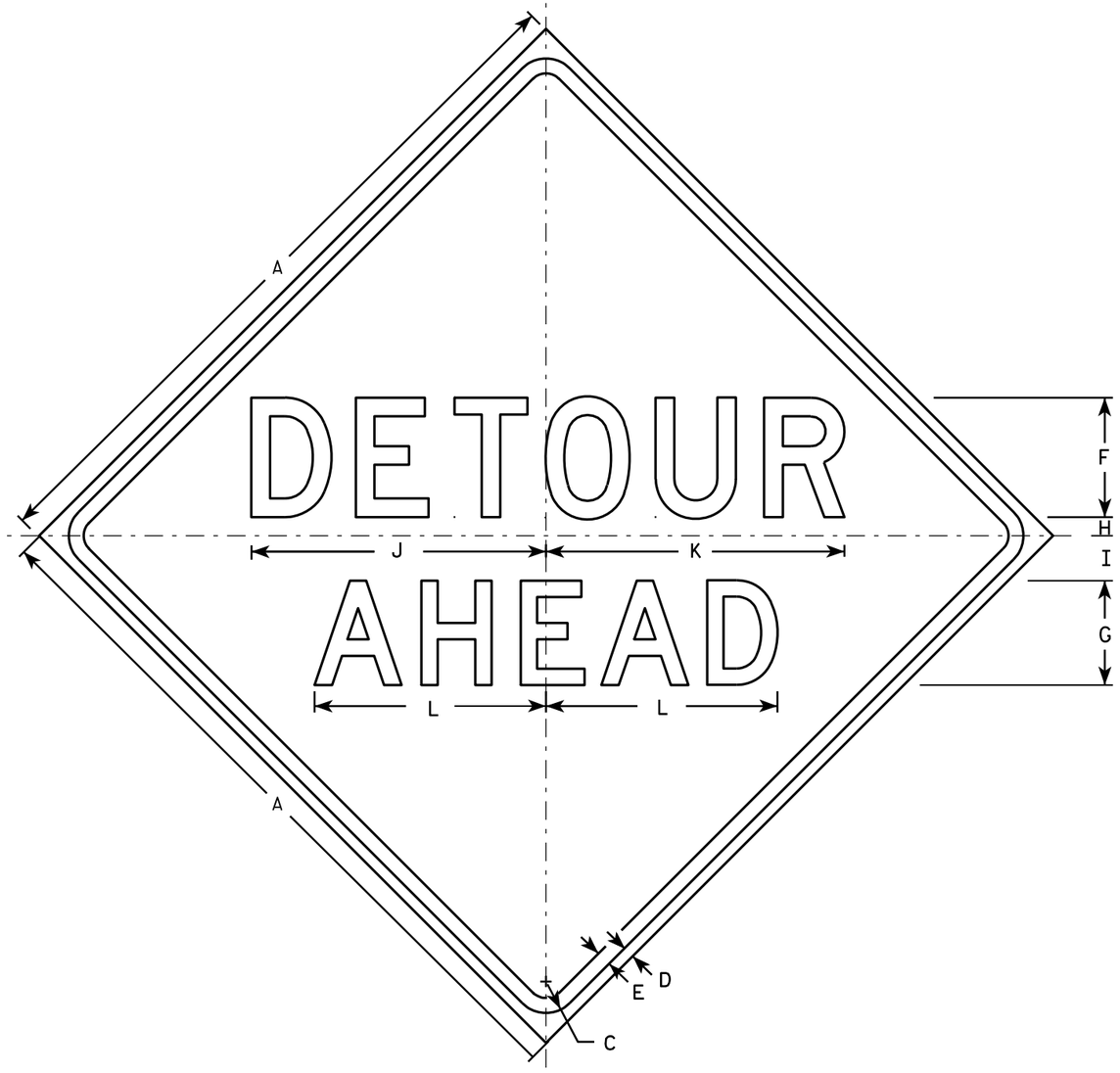
SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

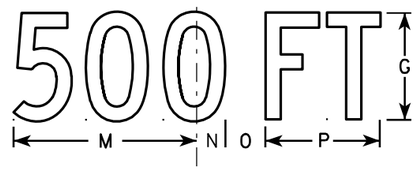
WISDOT/CADDS SHEET 42

7

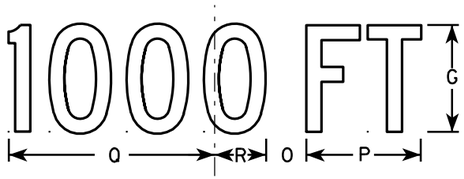
7



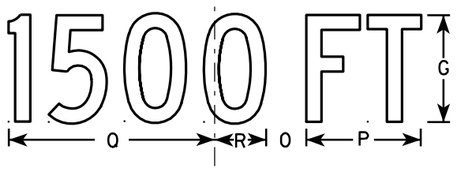
W20-2A



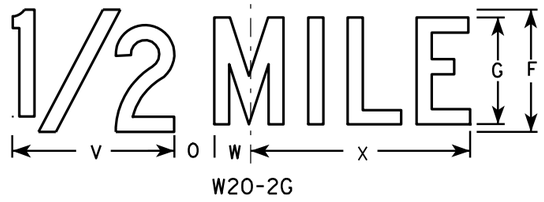
W20-2D



W20-2C



W20-2B



W20-2G



W20-2F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

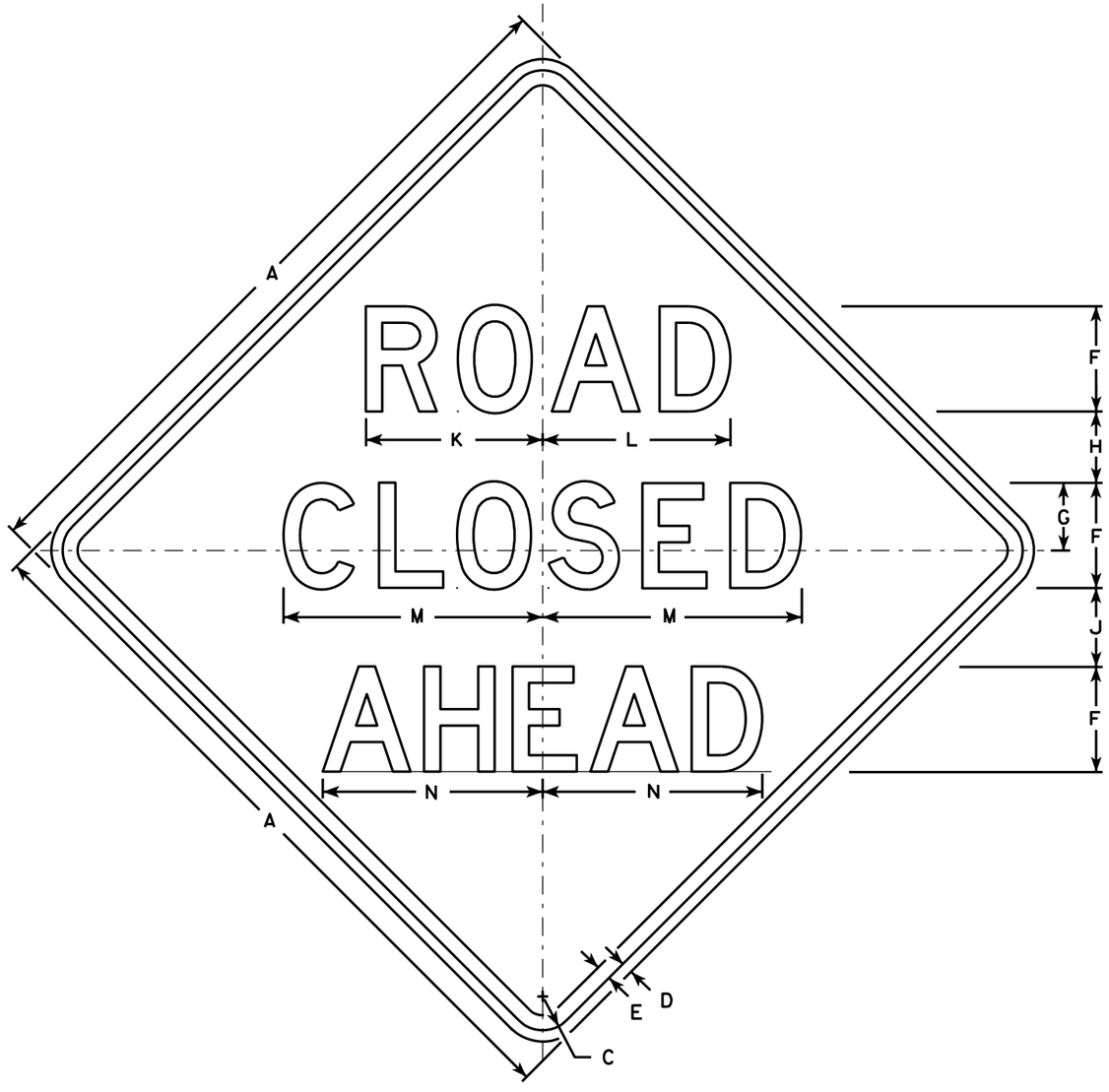
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

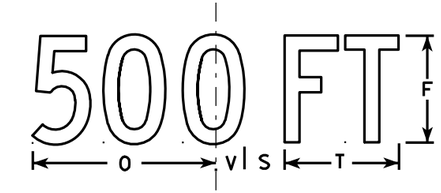
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 155 | E

7

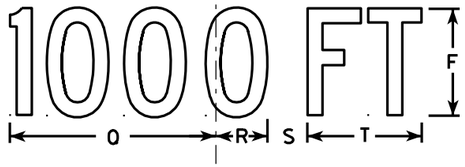
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W202.DGN PLOT DATE : 18-MAR-2011 10:00 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42



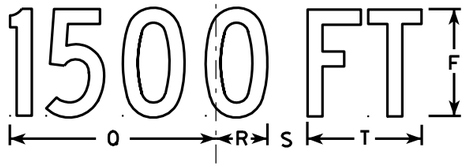
W20-3A



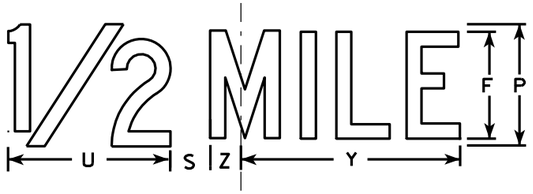
W20-3D



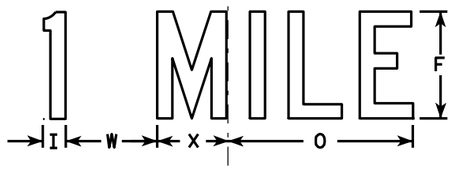
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

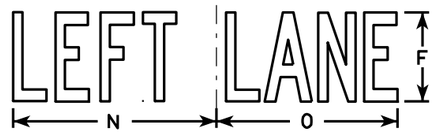
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 156 | E

7

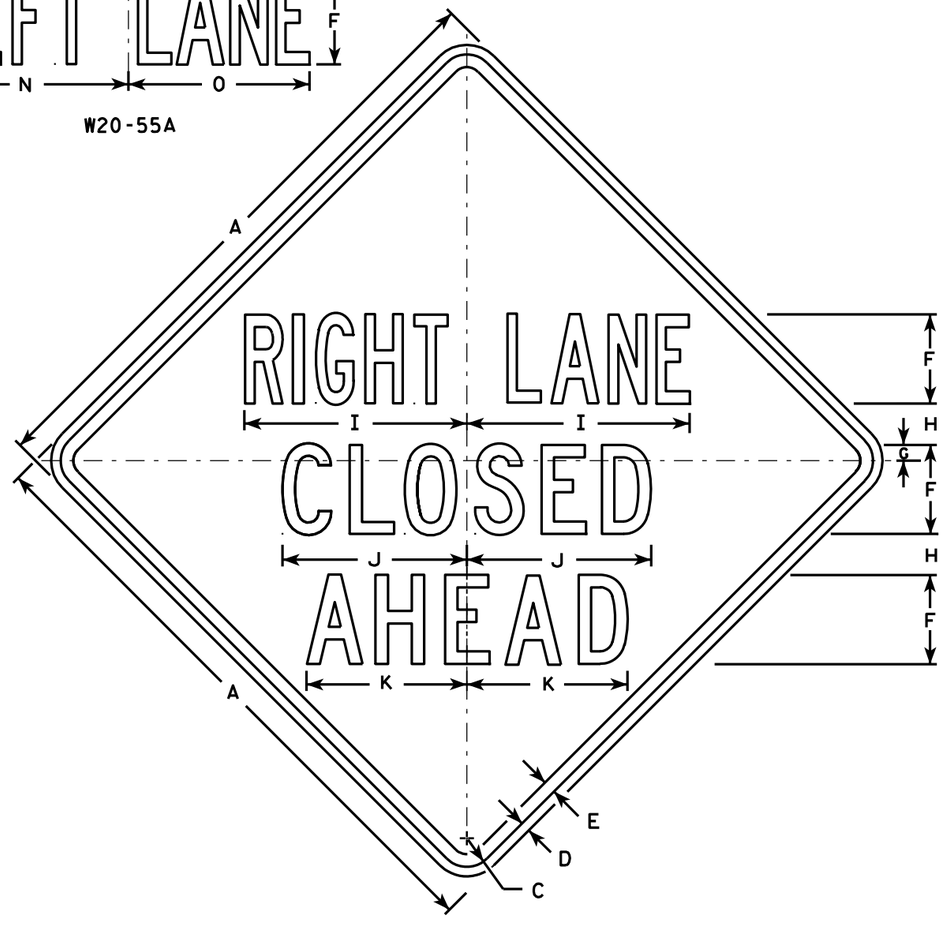
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W203.DGN PLOT DATE : 18-MAR-2011 12:08 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42



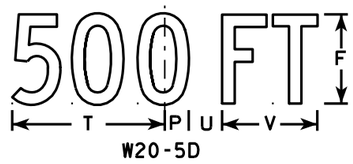
W20-56A



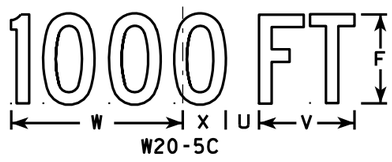
W20-55A



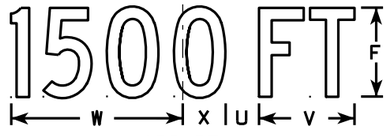
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

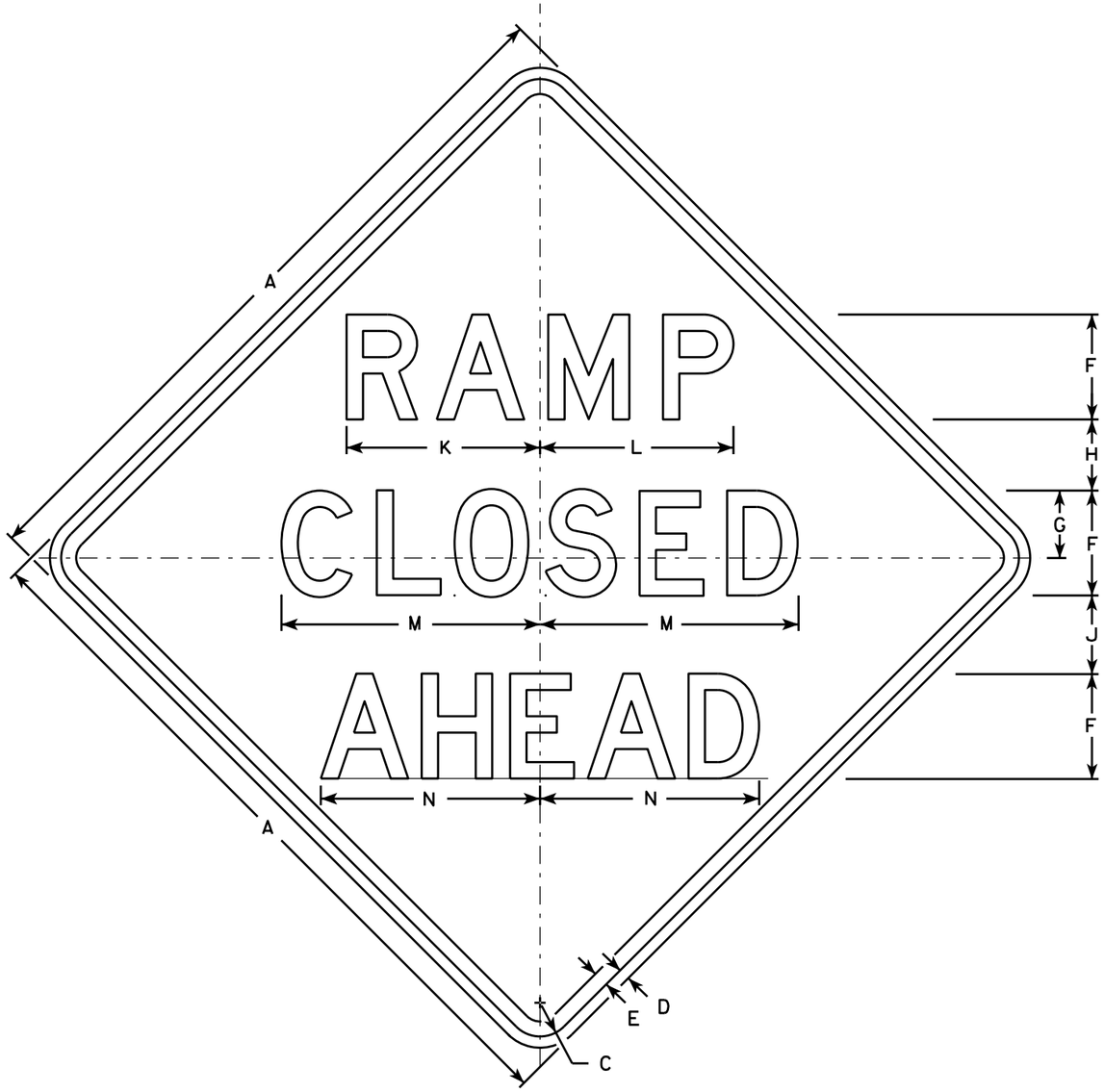
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

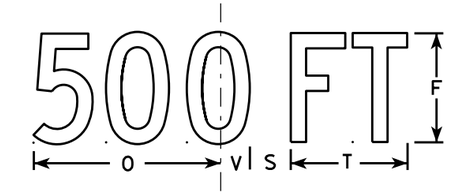
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 157 | E

7

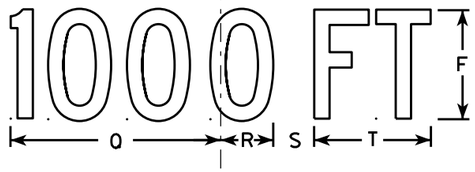
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



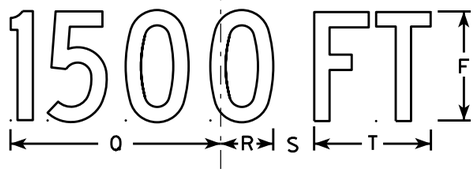
W20-53A



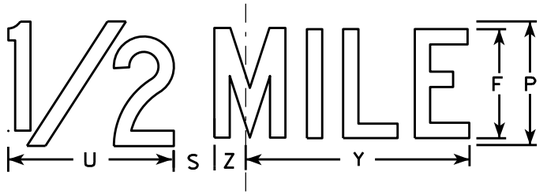
W20-53D



W20-53C



W20-53B



W20-53G



W20-53F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	9 1/4	9 1/4	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-53A,B,C,D,F,G

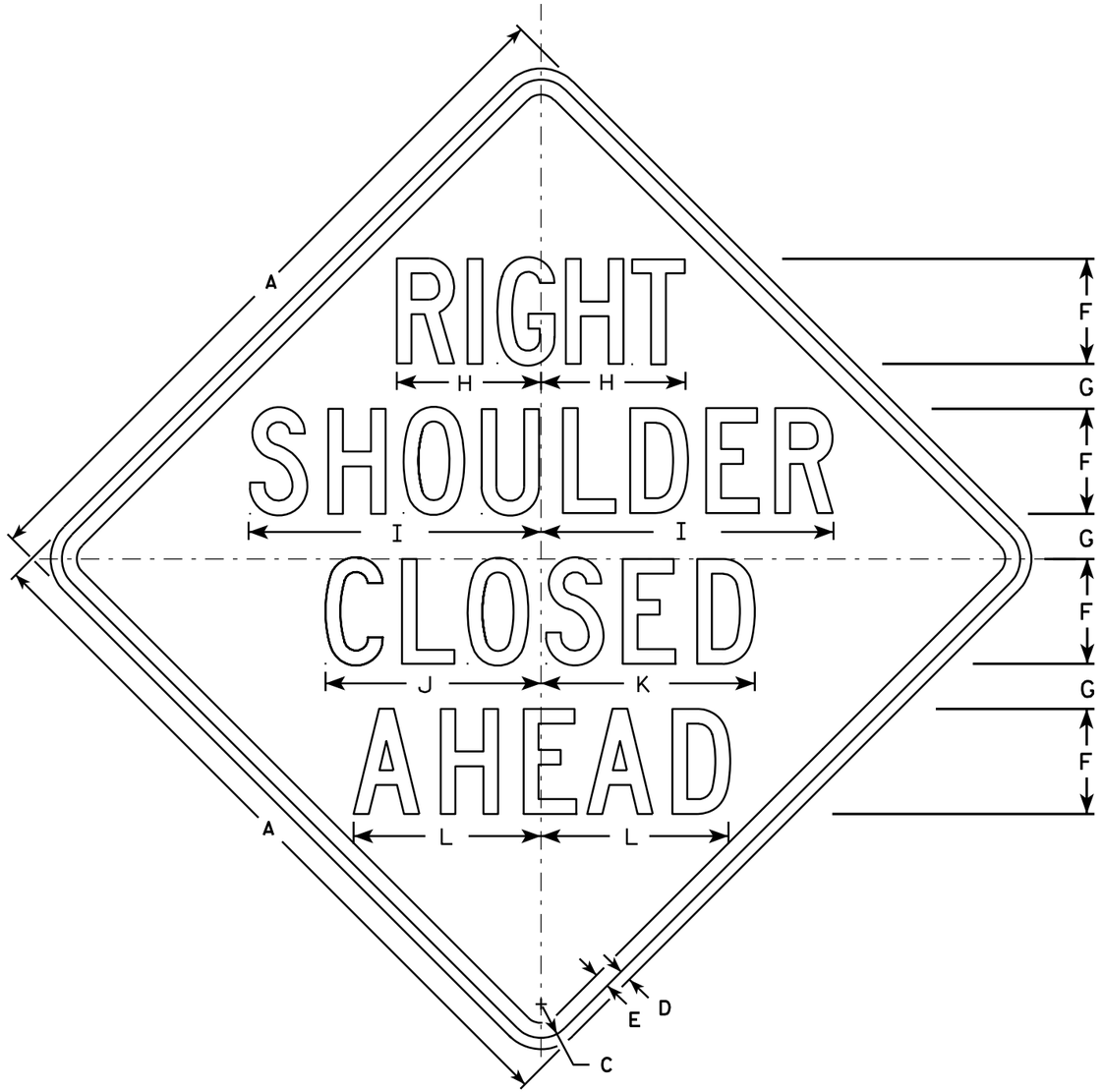
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

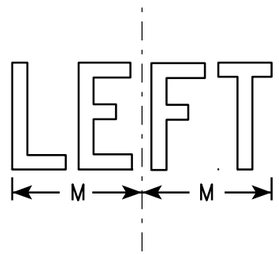
DATE 5/27/15 PLATE NO. W20-53.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W2053.DGN PLOT DATE : 27-MAY-2015 19:40 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.729210:1.000000
WISDOT/CADDS SHEET 42



W21-5B



W21-5BL

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 1/4	7 3/8	14 1/4	10 1/4	10 1/8	8 7/8	6 1/4														9.0
2S	48		2 1/4	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0
2M	48		2 1/4	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0
3	48		2 1/4	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0
4	48		2 1/4	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0
5	48		2 1/4	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0

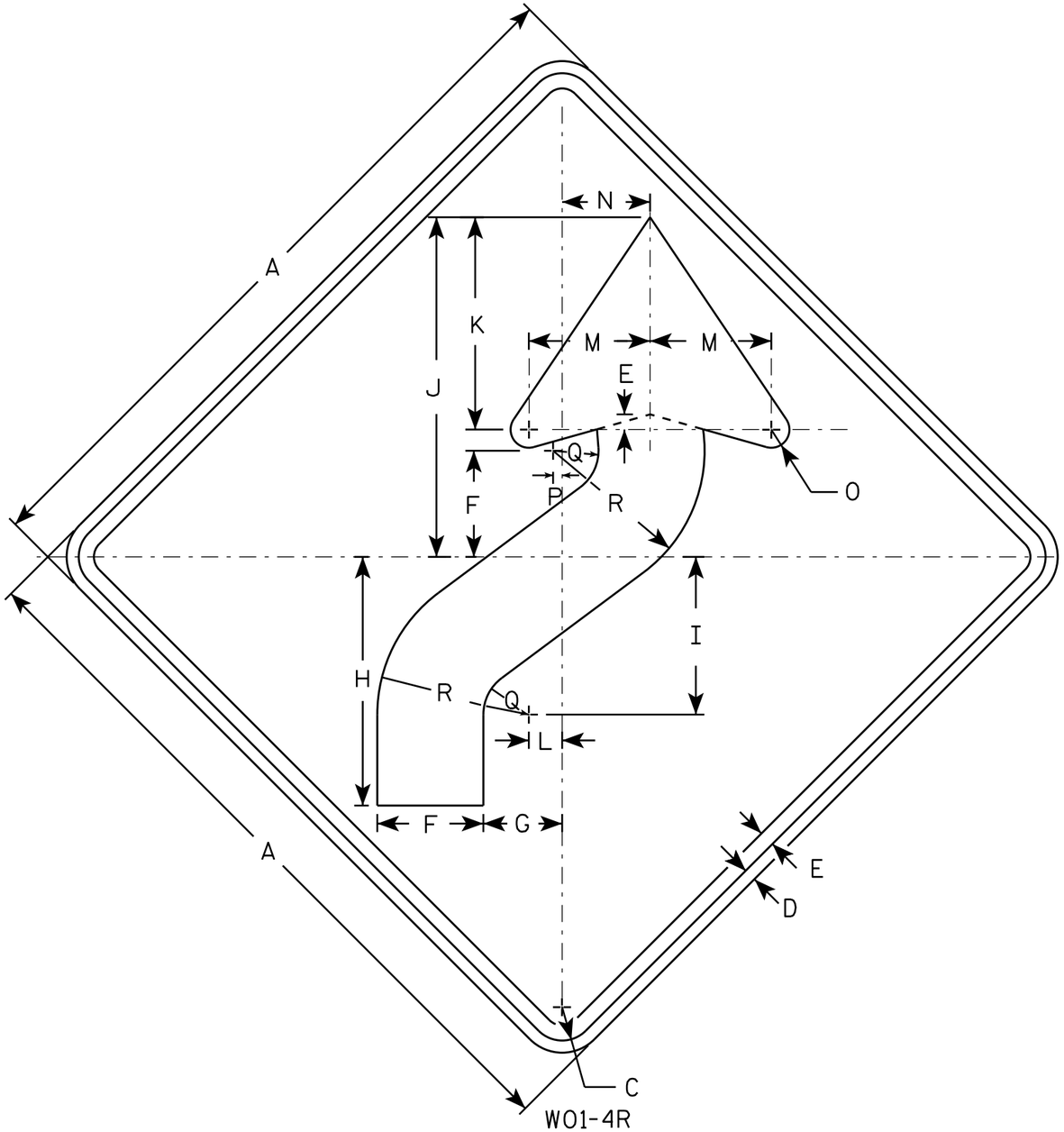
STANDARD SIGN
W21-5B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-5B.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 159	E



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

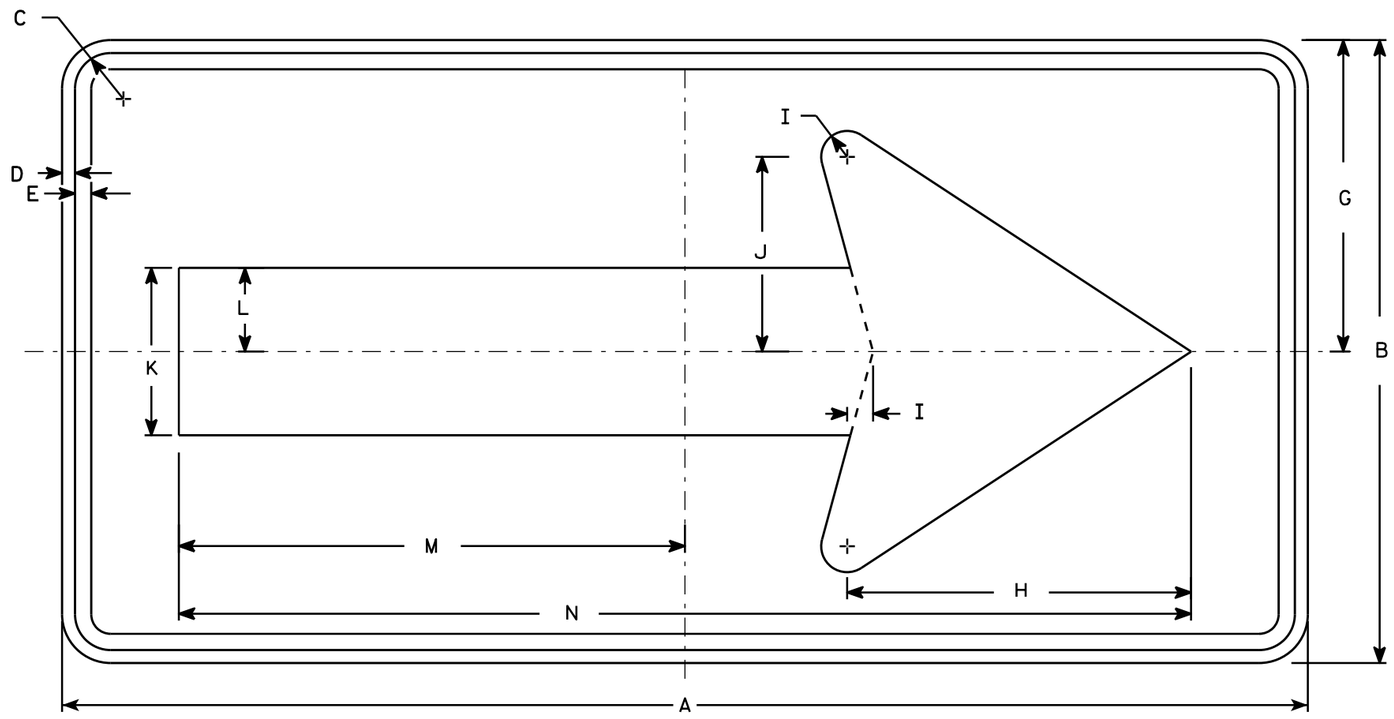
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000
WISDOT/CADDS SHEET 42



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

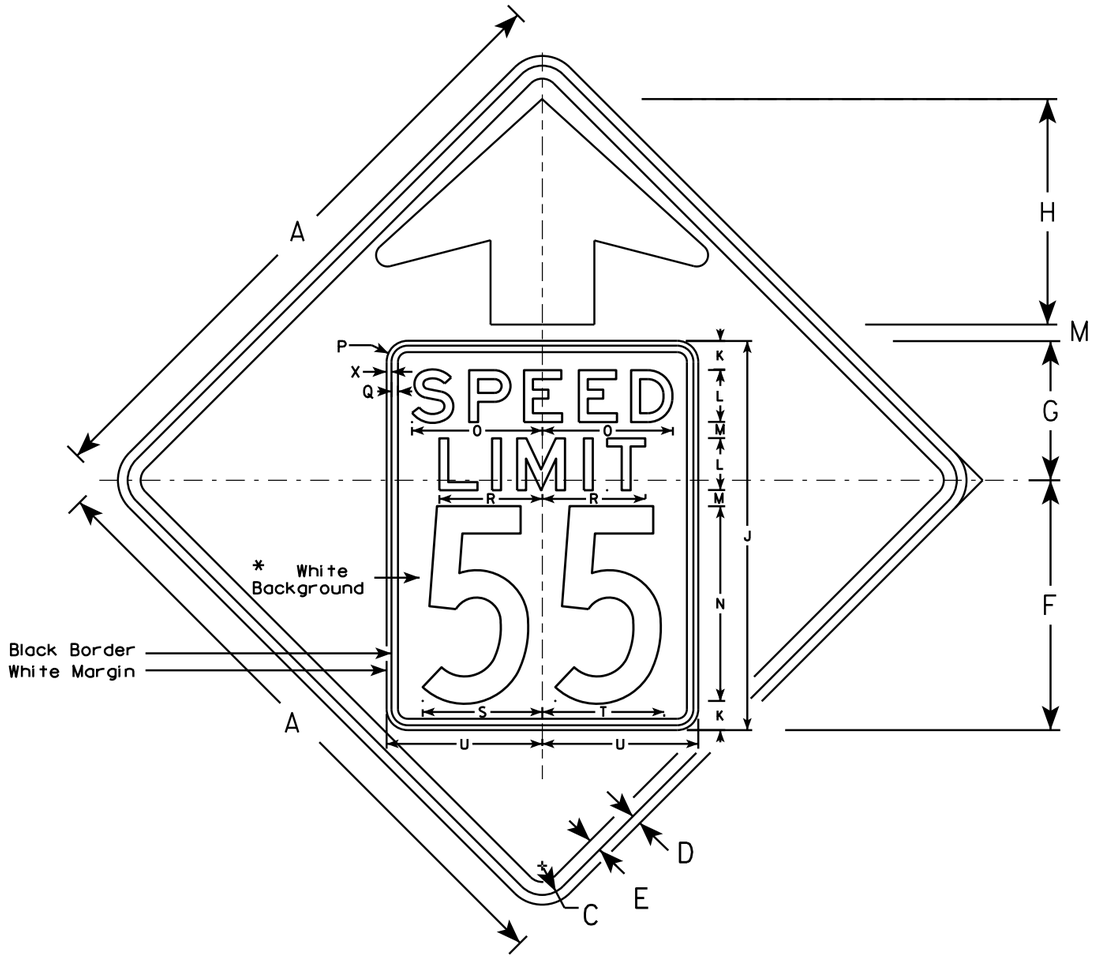
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42

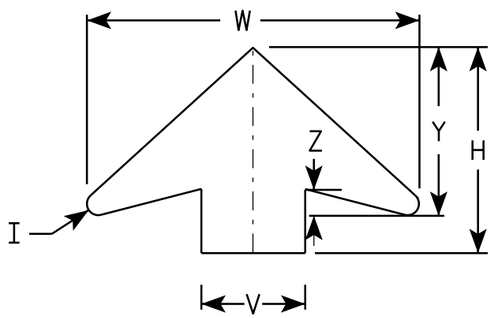


W03-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - ORANGE*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W03-5

WISCONSIN DEPT OF TRANSPORTATION

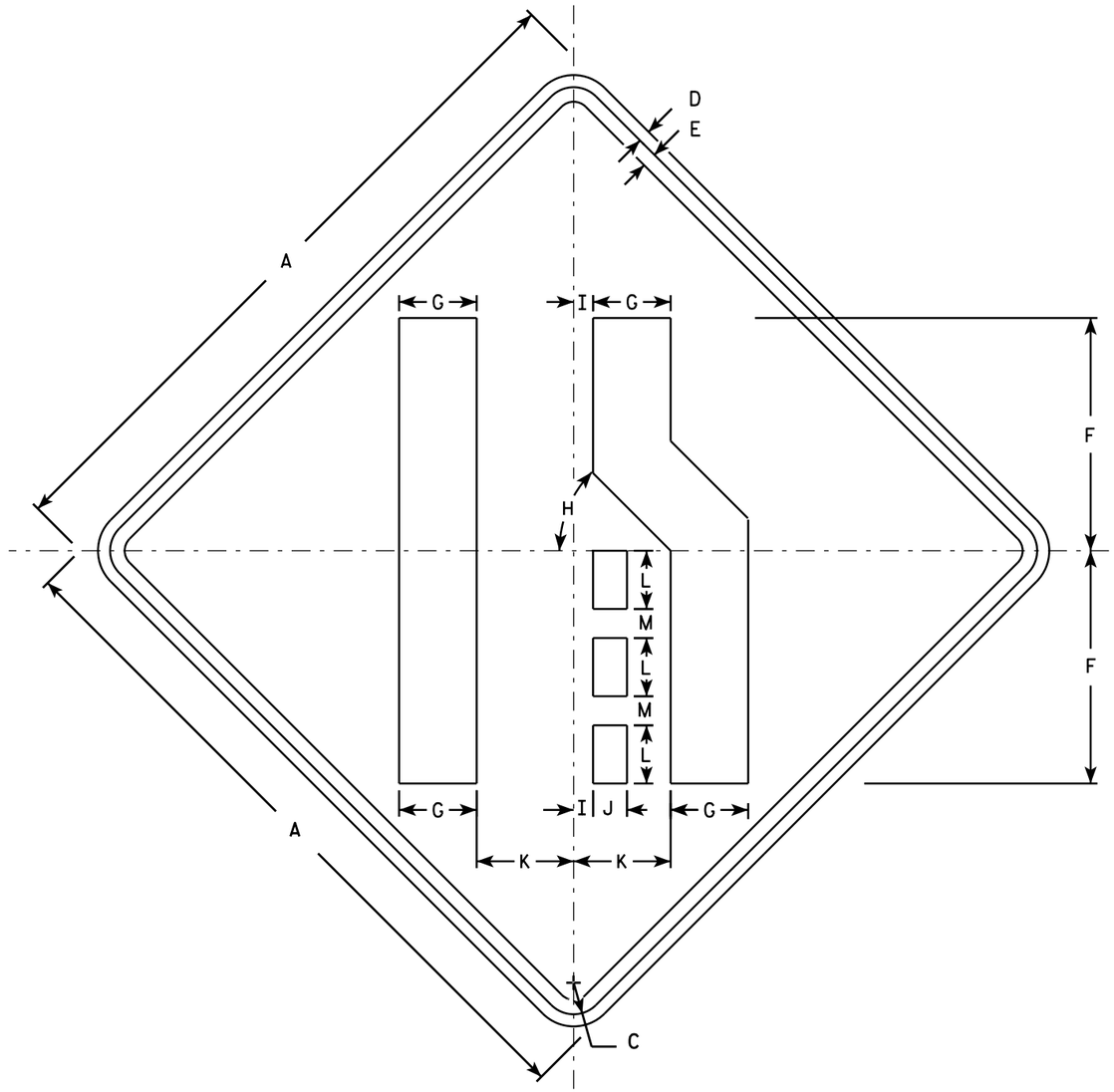
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-5.1

PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W035.DGN PLOT DATE : 20-NOV-2013 11:32 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

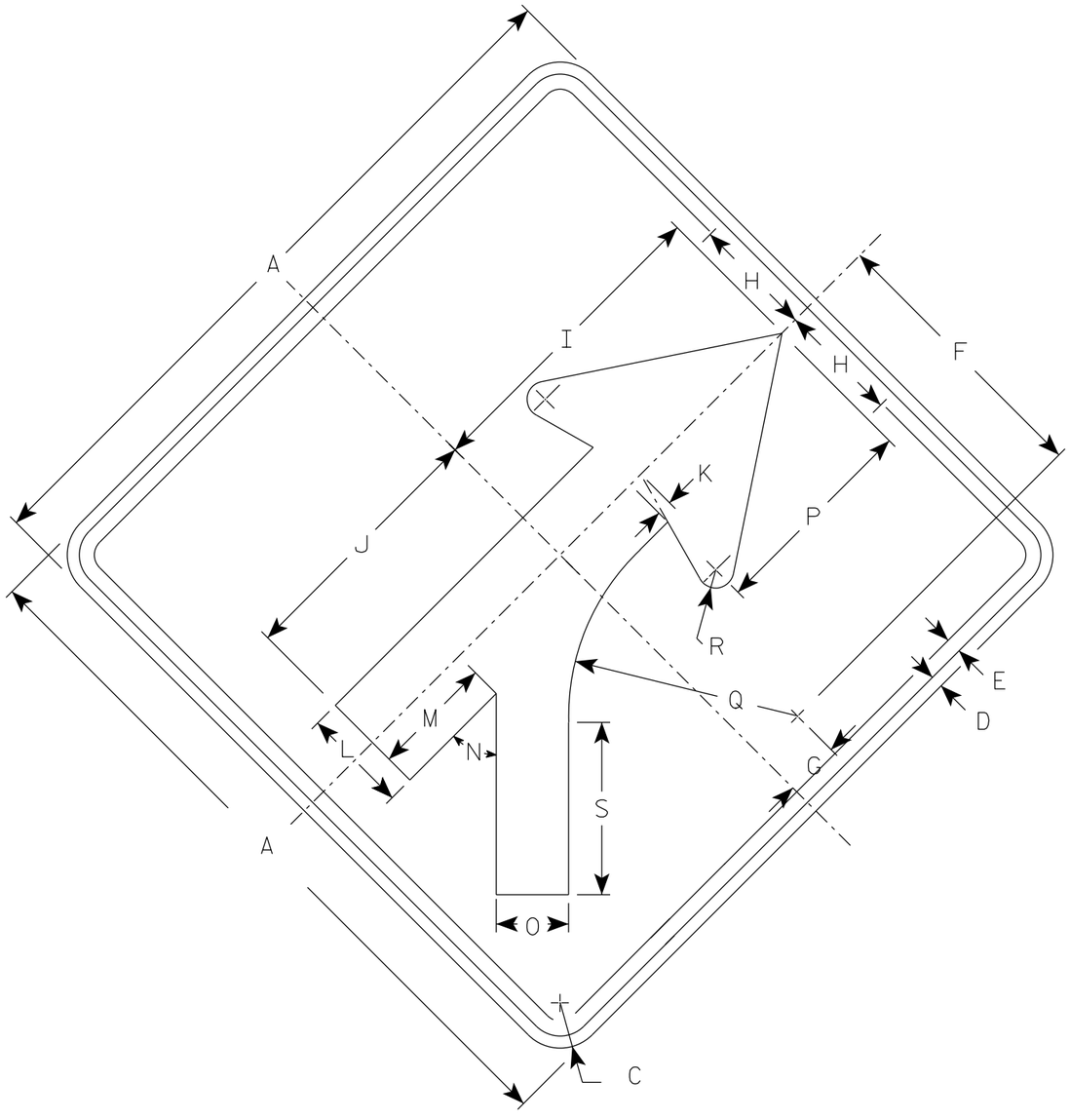
STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 163 W04-2.1

PROJECT NO: | SHEET NO: E



W04-5R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-5L is the same as W04-5R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	3/4	5 1/4	6 1/8	45°	3 5/8	10 5/8	11 3/8	7/8	8 1/2								9.0
2S	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	1	7	8 1/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
2M	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	1	7	8 1/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
3	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	1	7	8 1/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	1	7	8 1/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	1	7	8 1/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0

STANDARD SIGN

W04-5

WISCONSIN DEPT OF TRANSPORTATION

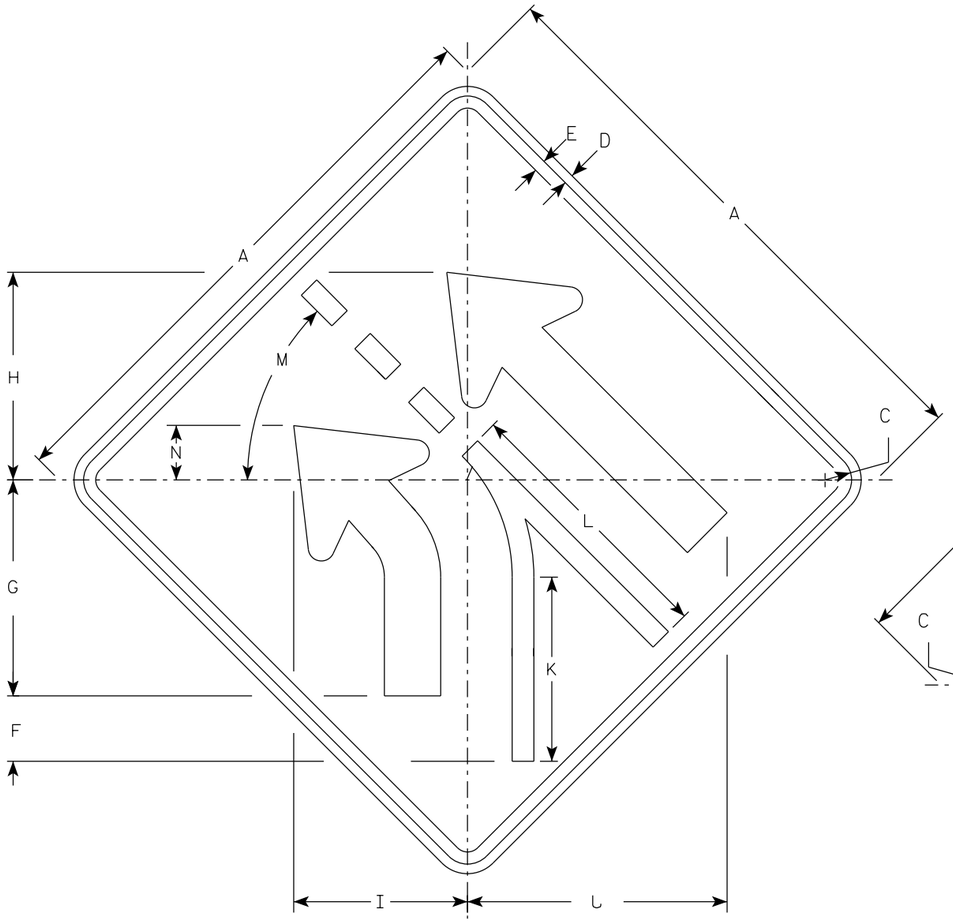
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 12/06/2021 PLATE NO. W04-5.2

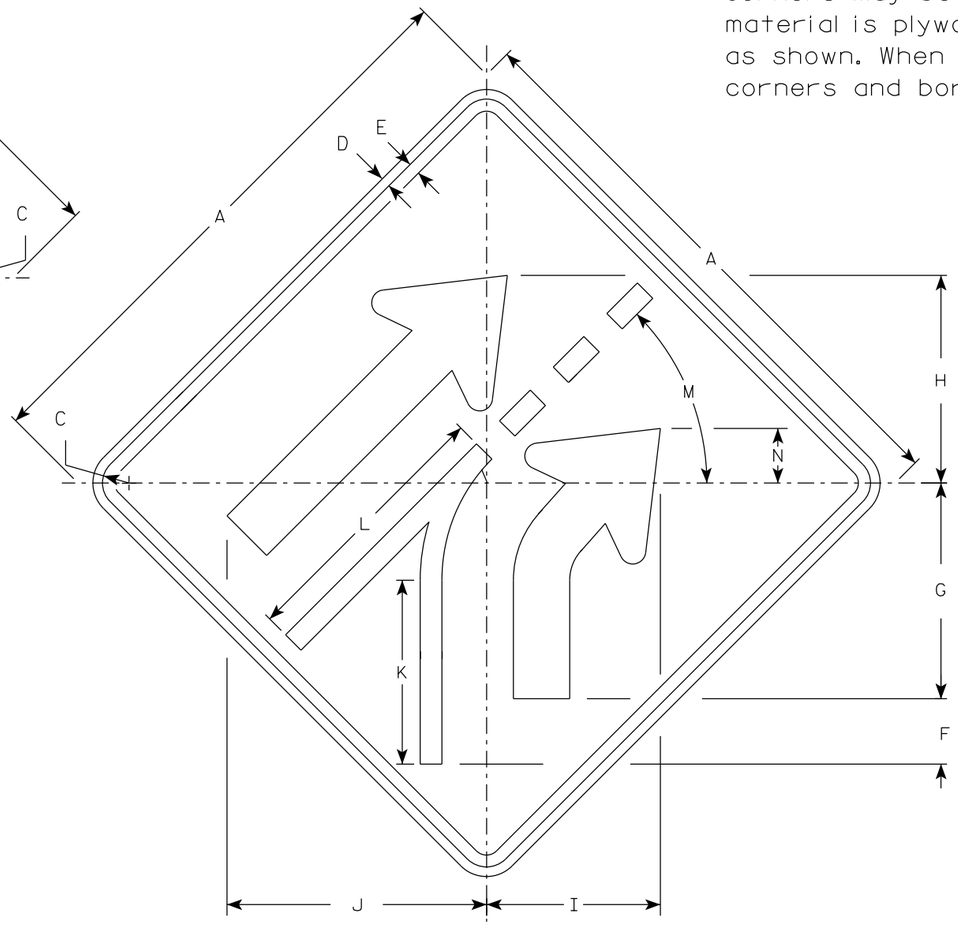
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 164 E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - ORANGE
   Message - BLACK
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W04-6L



W04-6R

* Scale and Rotate W04-3 and make modifications.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	4	13 1/2	13	10 7/8	16 1/4	11 1/2	16 7/8	45°	3 3/8													9.0
2S	48		2 1/4	3/4	1	5 3/8	18	17 1/4	14 1/2	21 5/8	15 1/4	22 1/2	45°	4 1/2													16.0
2M	48		2 1/4	3/4	1	5 3/8	18	17 1/4	14 1/2	21 5/8	15 1/4	22 1/2	45°	4 1/2													16.0
3	48		2 1/4	3/4	1	5 3/8	18	17 1/4	14 1/2	21 5/8	15 1/4	22 1/2	45°	4 1/2													16.0
4	48		2 1/4	3/4	1	5 3/8	18	17 1/4	14 1/2	21 5/8	15 1/4	22 1/2	45°	4 1/2													16.0
5	48		2 1/4	3/4	1	5 3/8	18	17 1/4	14 1/2	21 5/8	15 1/4	22 1/2	45°	4 1/2													16.0

STANDARD SIGN
W04-6

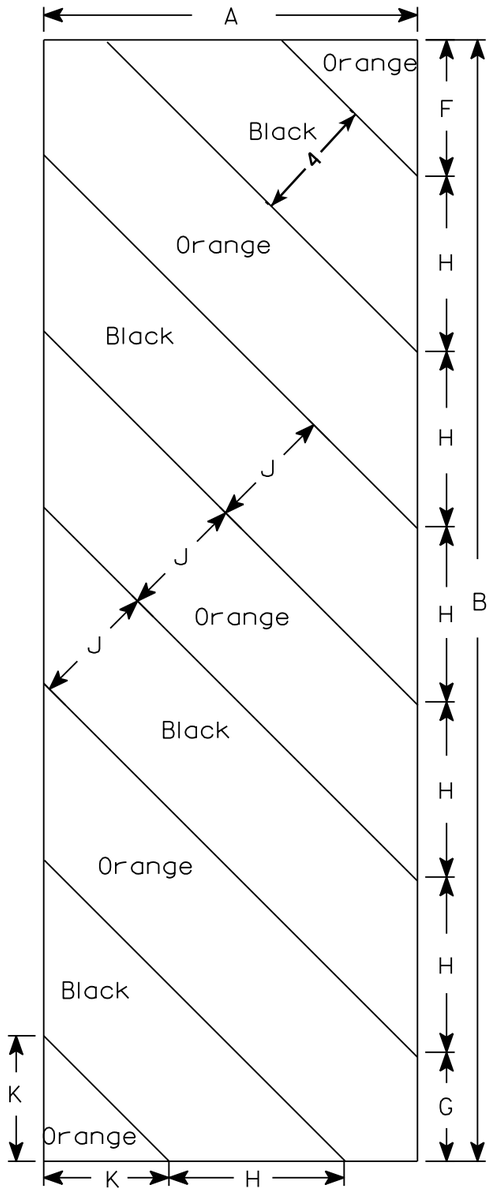
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

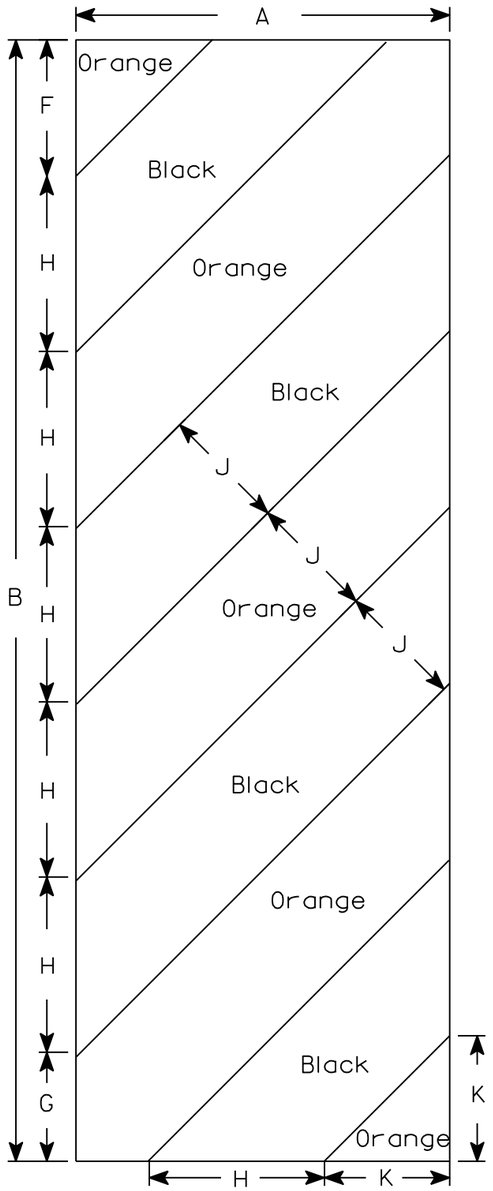
DATE 3/30/2021 PLATE NO. W04-6.1

PROJECT NO:

SHEET NO: 165 E



W05-52L



W05-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

W05-52L & W05-52R

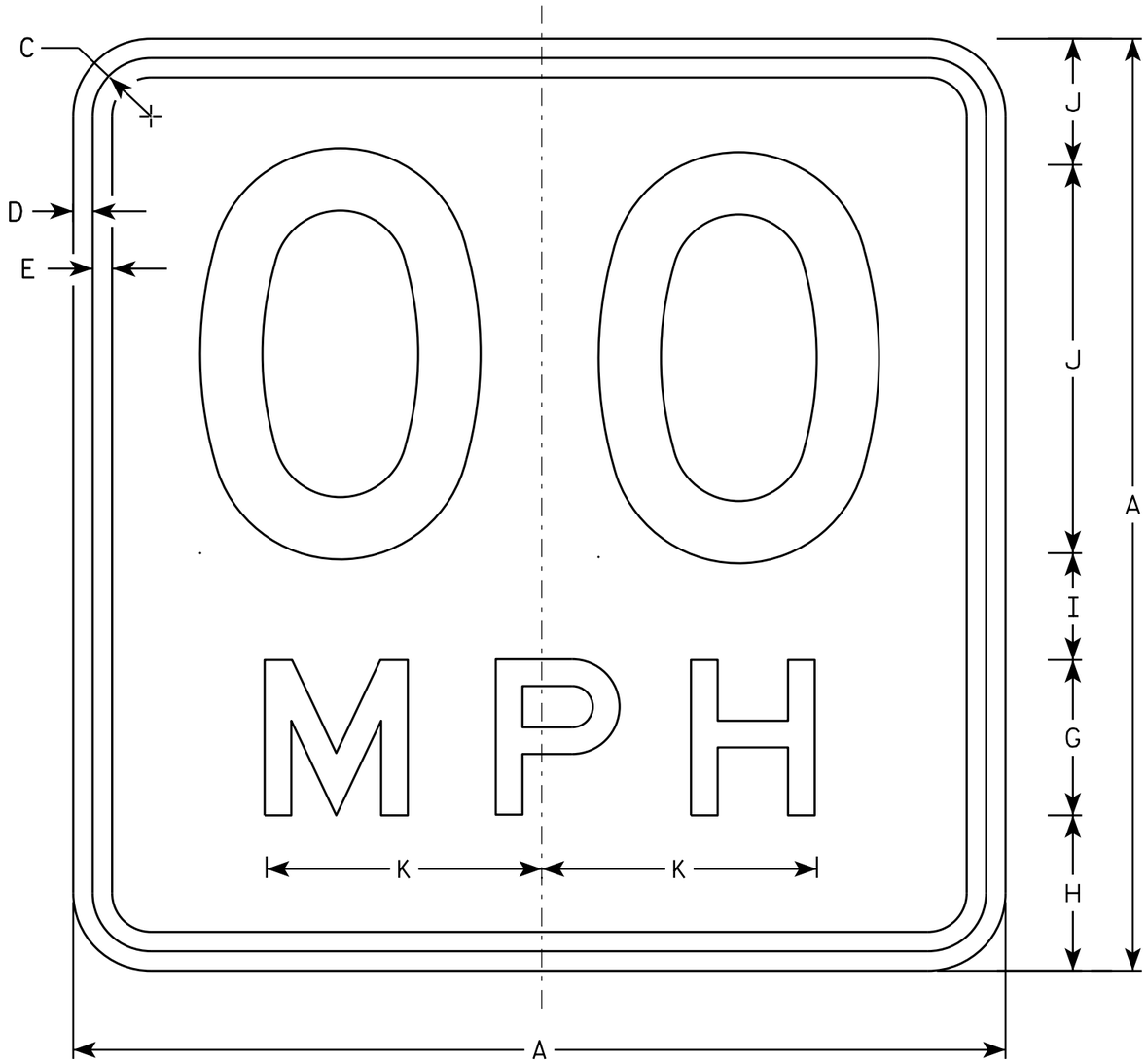
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W05-52.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W0552.DGN PLOT DATE : 28-FEB-2014 11:39 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.864607:1.000000 WISDOT/CADDS SHEET 42



W013-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	7 1/8																4.00
2S	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
2M	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
3	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

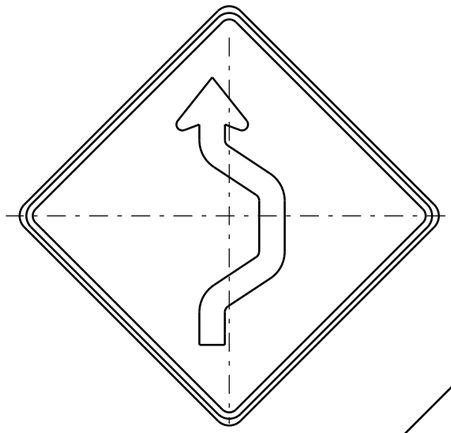
STANDARD SIGN
W013-1

WISCONSIN DEPT OF TRANSPORTATION

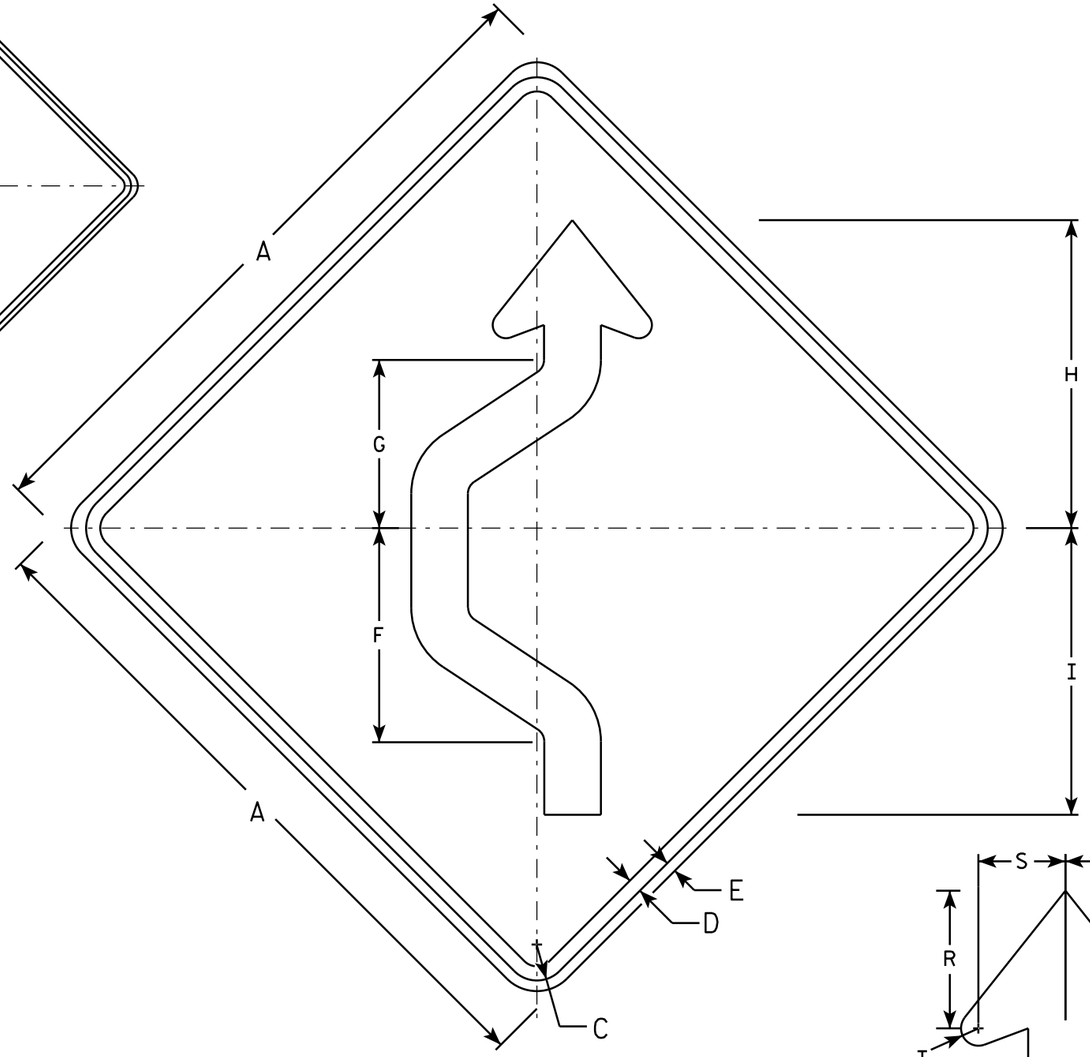
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/13 PLATE 167 W013-1.1

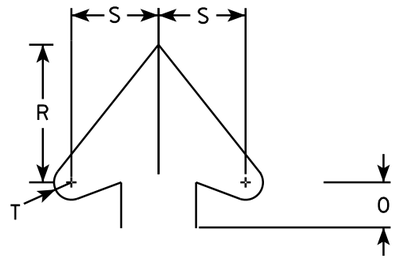
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W024-1R



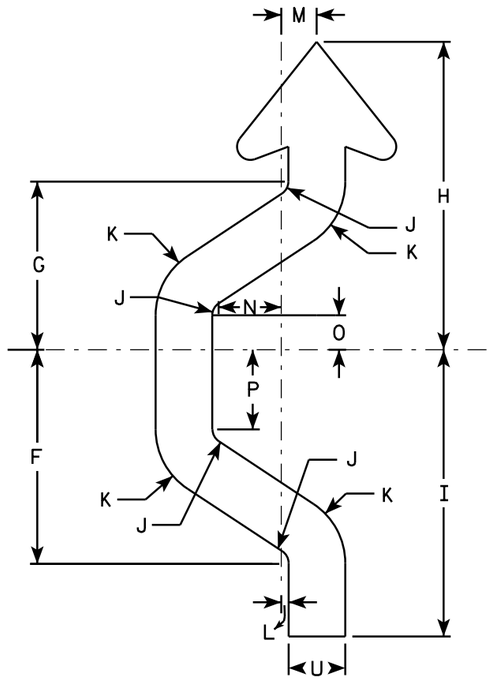
W024-1L



Arrowhead Detail

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W024-1R is the same as W024-1L except reversed along the vertical centerline.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	5/8	1/2	11 3/8	8 7/8	16 3/8	15 1/4	3/4	3 3/4	3/8	2	3 3/8	1 7/8	4 1/4		5 1/2	3 1/2	5/8	3						9
2S	48		2 1/4	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16
2M	48		2 1/4	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16
3	48		2 1/4	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16
4	48		2 1/4	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16
5	48		2 1/4	1	3/4	15 1/8	11 7/8	21 3/4	20 1/4	1	5	1/2	2 1/2	4 3/8	2 3/8	5 5/8		7 3/8	4 3/4	7/8	4						16

STANDARD SIGN
W024-1 L & R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

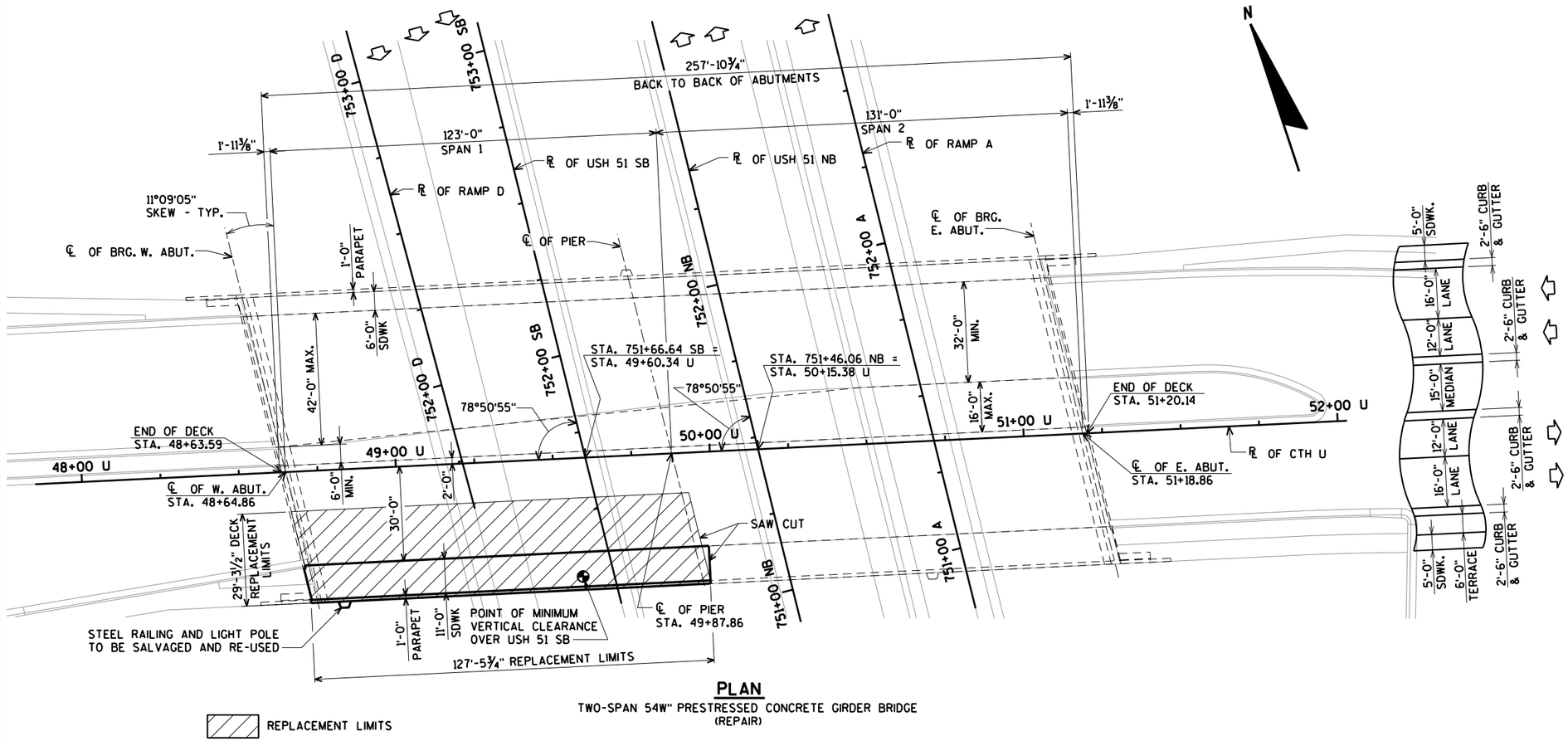
DATE 9/25/2013 PLATE NO. W024-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W0241.DGN PLOT DATE : 25-SEP-2013 13:08 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 10.702132:1.000000 WISDOT/CADDS SHEET 42

STATE PROJECT NUMBER

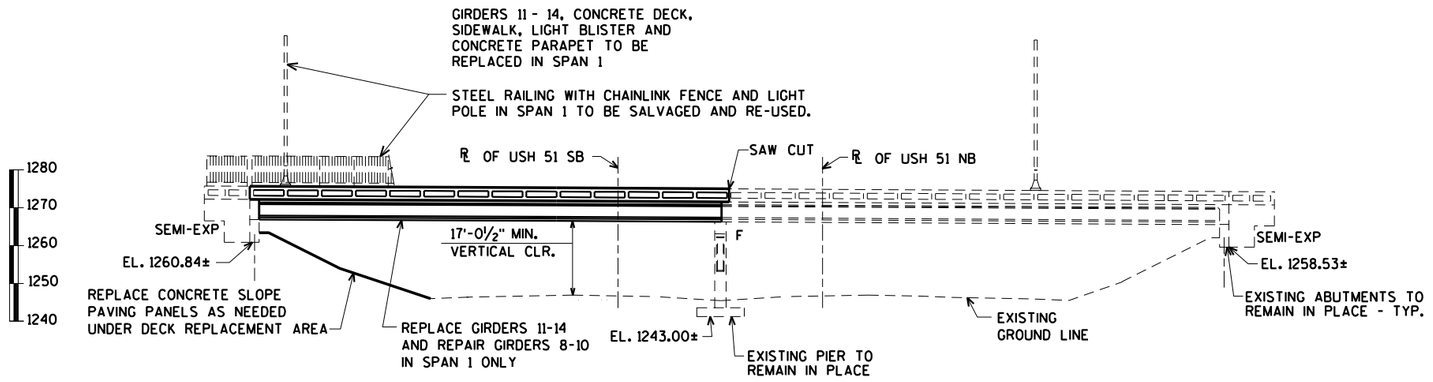
6999-12-71



PLAN

TWO-SPAN 54W" PRESTRESSED CONCRETE GIRDER BRIDGE
(REPAIR)

REPLACEMENT LIMITS



ELEVATION

(NORMAL TO USH 51)

LIST OF DRAWINGS

1. GIRDER REPLACEMENT
2. TYPICAL SECTION
3. QUANTITIES AND NOTES
4. STEEL INTER. DIAPHRAGM DETAILS
5. 54W" PRESTRESSED GIRDER DETAILS
6. 54W" PRESTRESSED GIRDER DETAILS
7. SUPERSTRUCTURE
8. SUPERSTRUCTURE PLAN AND DECK ELEVATIONS
9. SUPERSTRUCTURE SIDEWALK PLAN
10. SUPERSTRUCTURE DETAILS
11. SUPERSTRUCTURE DETAILS AND NOTES
12. SUPERSTRUCTURE DETAILS AND BILL OF BARS
13. LIGHTING DETAILS
14. MODIFIED VERTICAL FACE PARAPET
15. ARCHITECTURAL TREATMENT DETAILS
16. SLOPE PAVING

FOR TYPICAL SECTION AND DESIGN DATA SEE SHEET 2.
FOR GENERAL NOTES AND QUANTITIES SEE SHEET 3.

WISCONSIN
ARLEN E. BEAUDETTE
E-36829
EAU CLAIRE
PROFESSIONAL ENGINEER

05/17/2022

BRIDGE OFFICE CONTACT:
AARON BONK
(608)-261-0261

CONSULTANT CONTACT:
ARLEN BEAUDETTE
(715)-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

AYRES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 05/18/22
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-37-436

CTH U OVER USH 51

COUNTY MARATHON
~~TOWN~~/CITY/~~VILLAGE~~ WAUSAU

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	JLB	DESIGN CK'D.	JCK	DRAWN BY	CLP	PLANS CK'D.	AEB

GIRDER REPLACEMENT

SHEET 1 OF 16
169

DATE:
DATE:
DATE:

CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

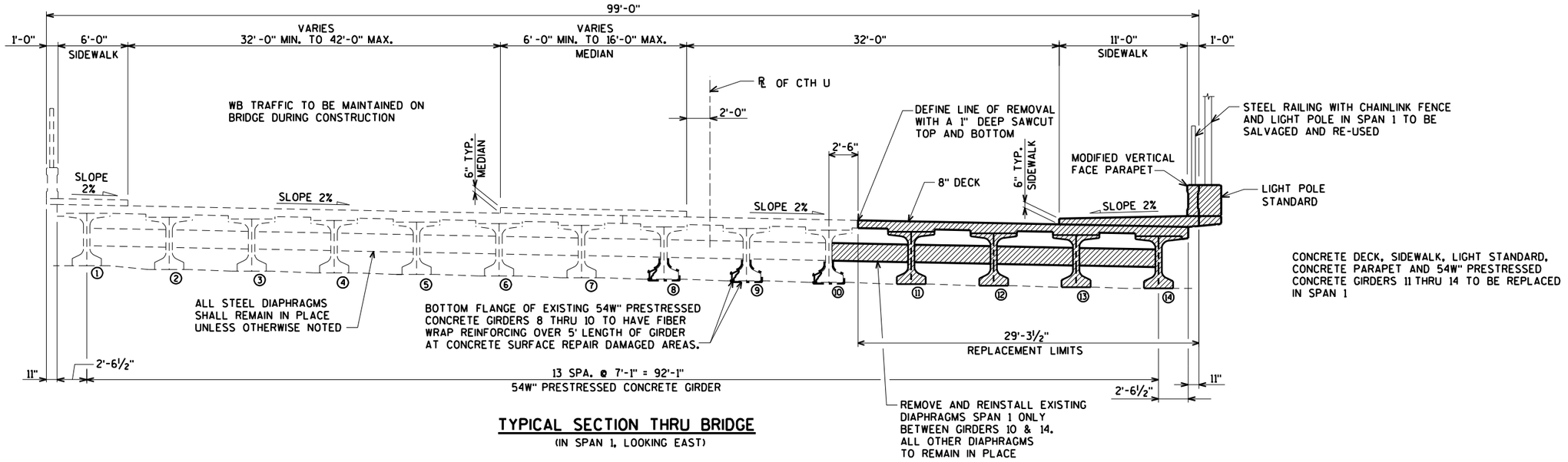
8

8

$PRFNAME$
I:±42±42-1310.00 - Marathon Co, CTH U over US51 Repair±CADD±Final±B-37-436 gp final.dgn

STATE PROJECT NUMBER

6999-12-71



TYPICAL SECTION THRU BRIDGE

(IN SPAN 1, LOOKING EAST)

DESIGN DATA

LIVE LOAD:

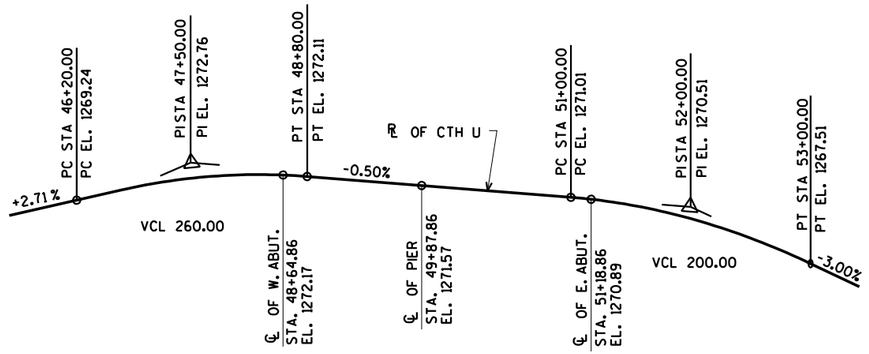
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.10
OPERATING RATING FACTOR: 1.52
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 230 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY SUPERSTRUCTURE	f'_c =	4,000 p.s.i.
BAR STEEL REINFORCEMENT (GRADE 60)	f_y =	60,000 p.s.i.
54W" PRESTRESSED GIRDERS, CONCRETE	f'_c =	8,500 p.s.i.
STRANDS - 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF	=	270,000 p.s.i.

TRAFFIC DATA:

CTH U	USH 51
A.D.T. = 7,400 (2015)	A.D.T. = 31,000 (2015)
A.D.T. = 10,600 (2035)	A.D.T. = 41,300 (2035)
R.D.S. = 40 M.P.H.	R.D.S. = 70 M.P.H.



PROFILE GRADE LINE

(CTH U)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-436

DRAWN BY CLP | PLANS CK'D. AEB

TYPICAL SECTION

SHEET 2 OF 16
170

ORIGINAL PLANS PREPARED BY
AYRES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

$PRFNAME$
I:±42±42-1310.00 - Marathon Co. CTH U over US51 Repair±CADD±final±B-37-436 gp final.dgn

4/26/2022

PENTABLE:BReau_shd_util.tbl

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STATE PROJECT NUMBER

6999-12-71

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
203.0220	REMOVING STRUCTURE B-37-436	EACH	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-37-436	LS	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	65
502.0100	CONCRETE MASONRY BRIDGES	CY	192
502.3200	PROTECTIVE SURFACE TREATMENT	SY	400
503.0155	PRESTRESSED GIRDER TYPE I 54W-INCH	LF	493.5
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	36,910
505.0904	BAR COUPLERS NO. 4	EACH	39
505.0910	BAR COUPLERS NO. 10	EACH	57
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	8
⊗ 509.1500	CONCRETE SURFACE REPAIR	SF	100
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	6
517.1010.S	CONCRETE STAINING B-37-436	SF	2,075
531.8990	ANCHOR ASSEMBLIES POLES ON STRUCTURES	EACH	1
604.0400	SLOPE PAVING CONCRETE	SY	50
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	10
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	255
653.0222	JUNCTION BOXES 18x12x6-INCH	EACH	1
SPV.0060.01	REMOVE AND REINSTALL STEEL DIAPHRAGMS	EACH	8
SPV.0060.02	REMOVE AND REINSTALL LIGHT POLE	EACH	1
SPV.0060.03	REMOVING AND RESETTING RAILING AND CHAINLINK FENCING B-37-436	EACH	1
SPV.0165.01	FIBER WRAP REINFORCING NON-STRUCTURAL	SF	100
	NON-BID ITEMS		
	FILLER		

⊗ UNDISTRIBUTED FOR GIRDERS AS DIRECTED BY THE ENGINEER IN THE FIELD.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS ARE BASED ON ORIGINAL STRUCTURE PLANS.

BAR STEEL SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1" DEEP SAW CUT UNLESS SHOWN OR NOTED OTHERWISE.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

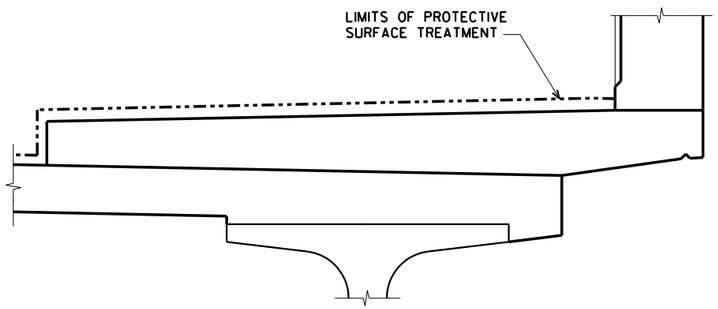
THE HAUNCH CONCRETE QUANTITY IS BASED ON AN AVERAGE DEPTH OF 3⅜", WHICH IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH THE CONTRACTOR WILL BE PAID.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

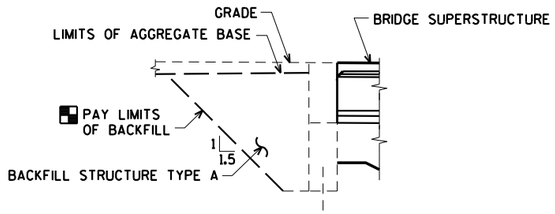
PROTECTIVE SURFACE TREATMENT TO BE APPLIED AS SHOWN IN THE DETAILS ON THIS SHEET.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO "EXCAVATION FOR STRUCTURES".

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-37-436" SHALL BE THE EXISTING GROUNDLINE.



PROTECTIVE SURFACE TREATMENT DETAIL



BACKFILL STRUCTURE LIMITS THRU ABUTMENT

BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-436

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QUANTITIES AND NOTES

SHEET 3 OF 16
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ORIGINAL PLANS PREPARED BY
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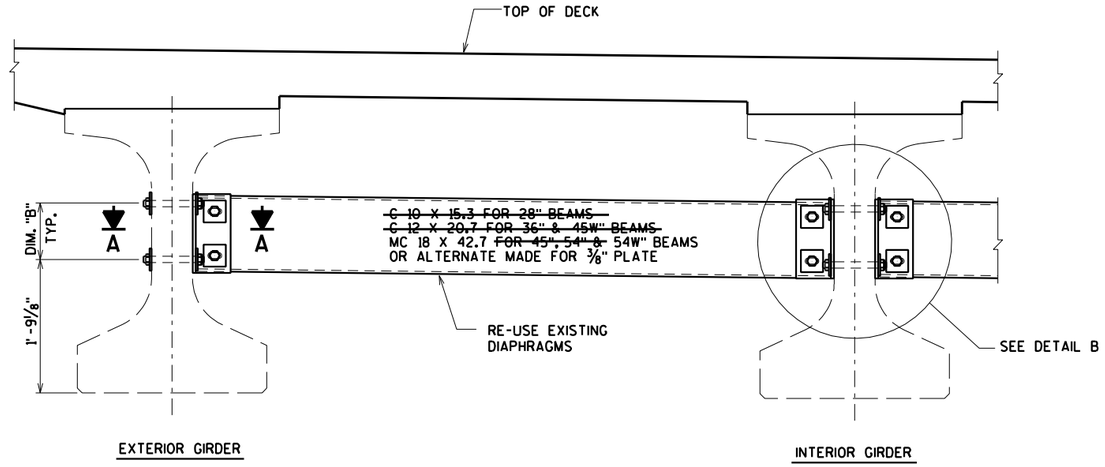
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5/17/2022

PENTABLE:BReau_shd_util.tbl

TABLE

GIRDER HEIGHT	DIM. "A"	DIM. "B"	DIM. "L"	* DIM. "X"
54W"	1'-9 1/8"	1'-5 7/8"	1'-9 1/2"	4 1/4"



PART TRANSVERSE SECTION AT DIAPHRAGM

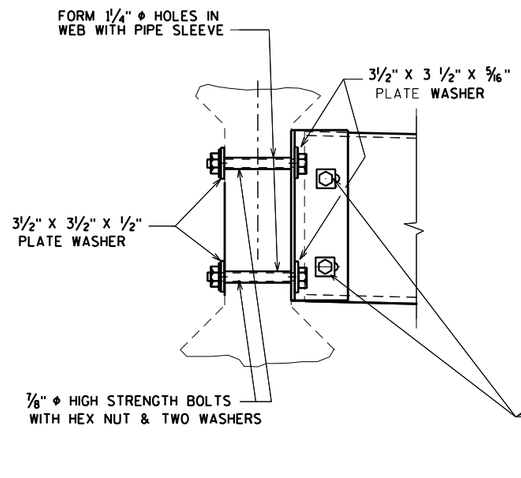
NOTES

REMOVE AND REINSTALL EXISTING DIAPHRAGMS. WORK SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "REMOVE AND REINSTALL STEEL DIAPHRAGMS", EACH.

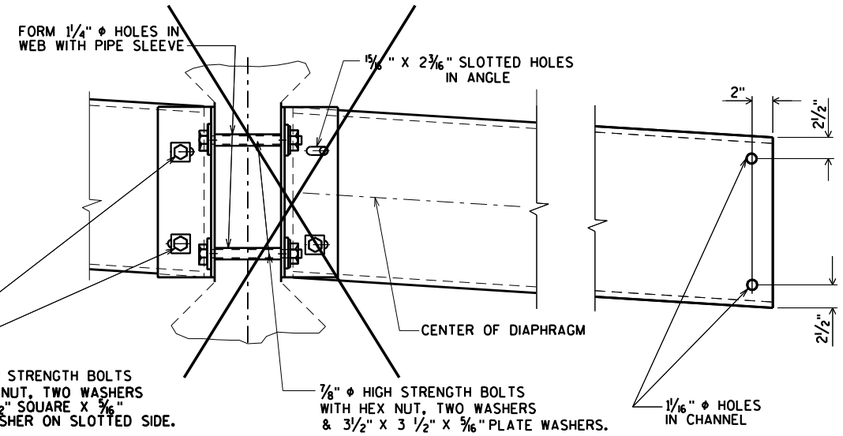
EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

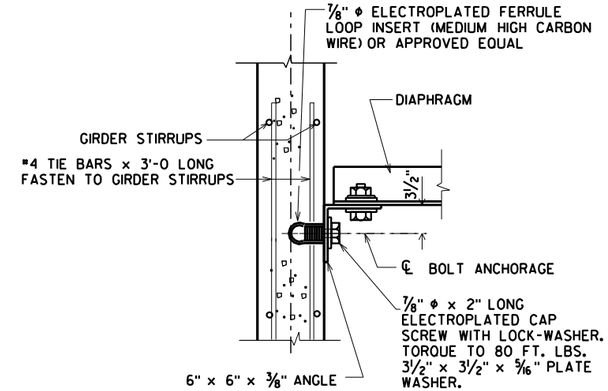


(FOR STAGGERED DIAPHRAGMS)



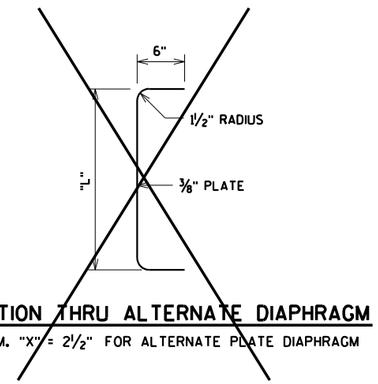
(FOR CONTINUOUS LINE OF DIAPHRAGMS)

DETAIL B



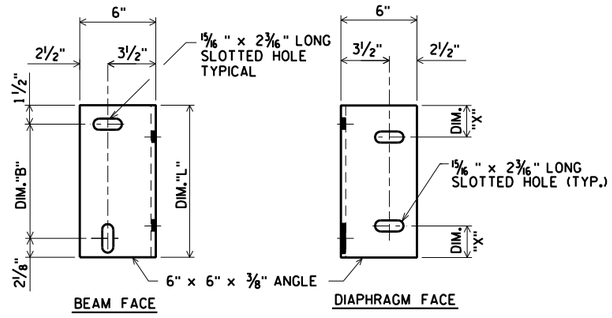
SECT. A-A

(FOR EXTERIOR ATTACHMENT)



SECTION THRU ALTERNATE DIAPHRAGM

*DIM. "X" = 2 1/2" FOR ALTERNATE PLATE DIAPHRAGM



DIAPHRAGM SUPPORT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-436

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STEEL INTER. DIAPHRAGM DETAILS

SHEET 4 OF 16
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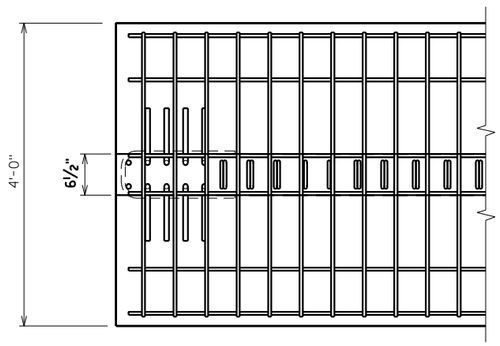
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I:\42\42-1310.00 - Marathon Co, CTH U over US51 Repair\CADD\Final\B-37-436 altDIA.dgn

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1:\42\42-1310.00 - Marathon Co, CTH U over US51 Repair\CADD\Final\B-37-436 pg54w.dgn

STATE PROJECT NUMBER

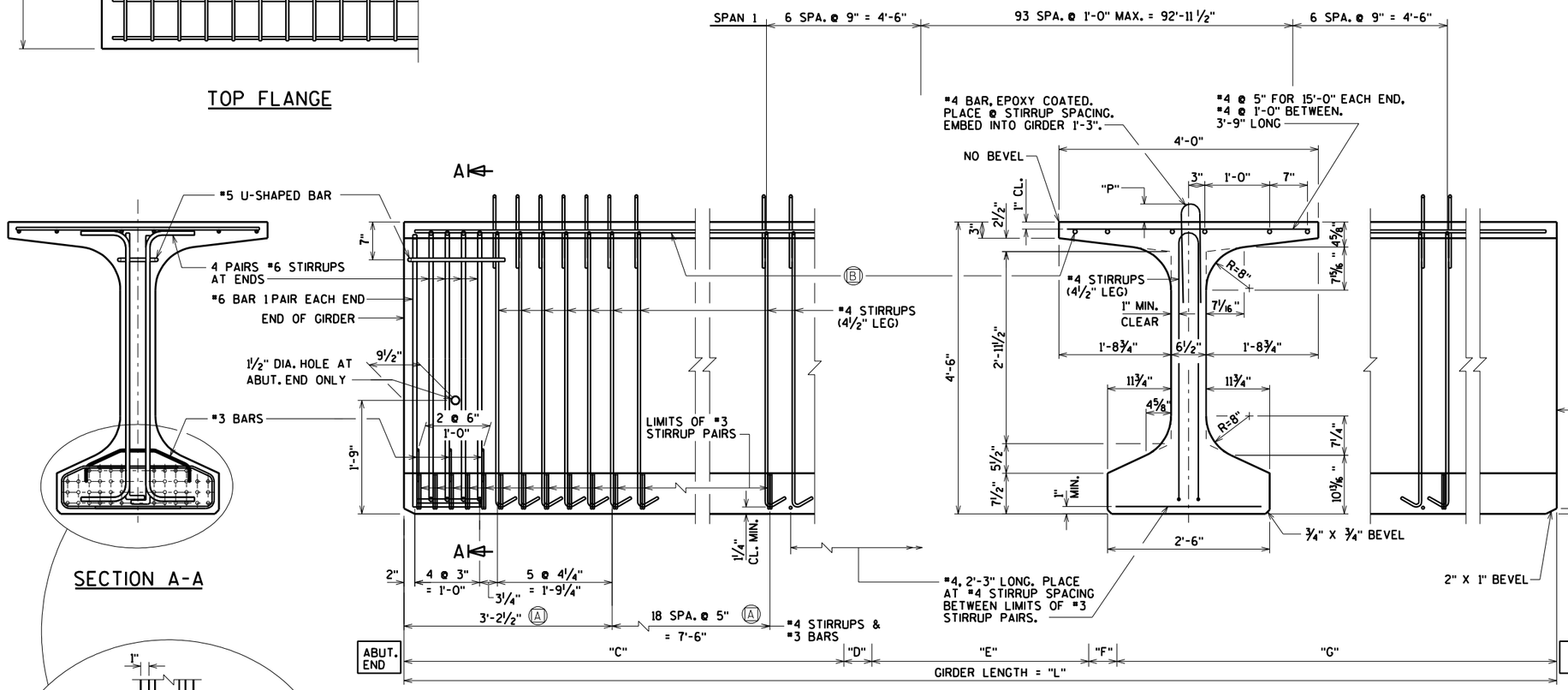
6999-12-71



TOP FLANGE

HOLE SPACING - STEEL DIAPHRAGMS TO GIRDER WEB CONNECTION

SPAN	GIRDER	"C" (ABUT. END)	"D"	"E"	"F"	"G" (PIER END)
1	11 TO 13	40'-5⅛"	1'-4¾"	39'-8¾"	1'-4¾"	40'-5⅛"
	14	40'-5⅛"	-----	41'-1½"	-----	41'-9⅞"

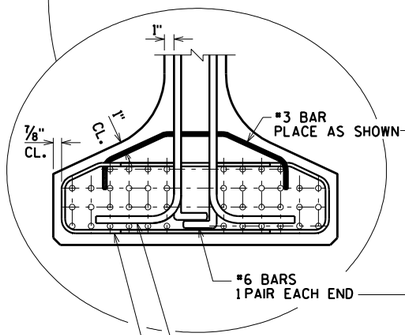


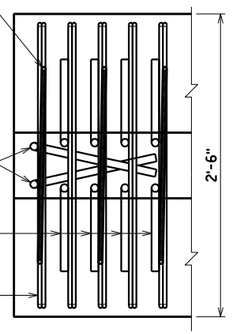
SECTION A-A

SIDE VIEW & TYP. SECTION IN SPAN

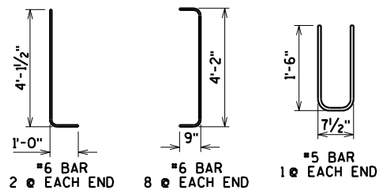
Ⓐ DETAIL TYP. AT EACH END

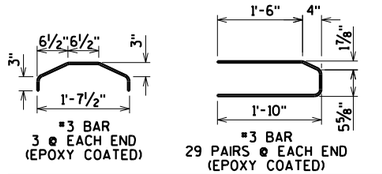
Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 2'-4"





BOTTOM FLANGE





* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P" 1ST ⅓ OF GIRDER	"P" MID ⅓ OF GIRDER	"P" END ⅓ OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *
1	14	123'-4½"	0.6	1.2	1.7	2.0	2.1	2.0	1.7	1.2	0.6	8,500	8"	7"	8"	0.6	38	6,800	49	16	19	5		
1	11 TO 13	123'-4½"	0.7	1.3	1.8	2.1	2.2	2.1	1.8	1.3	0.7	8,500	8"	7"	8"	0.6	38	6,800	49	16	19	5		

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 15" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 15" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER OR EPOXY TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECT. 503.3.4 OF STANDARD SPECIFICATIONS FOR GUIDANCE.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES MAINTENANCE SECTION. IF USED, WWF SUBSTITUTION DETAILS SHALL BE SUBMITTED ELECTRONICALLY TO THE WISDOT FABRICATION LIBRARY AND ACCEPTED PRIOR TO SHOP DRAWING SUBMITTAL.

PRESTRESSING STRANDS SHALL BE (0.6" DIA.)-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-436

DRAWN BY CLP | PLANS CK'D. AEB

54W" PRESTRESSED GIRDER DETAILS

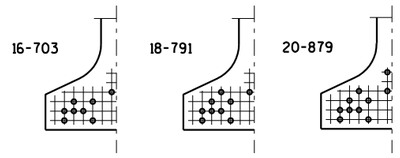
SHEET 5 OF 16
173

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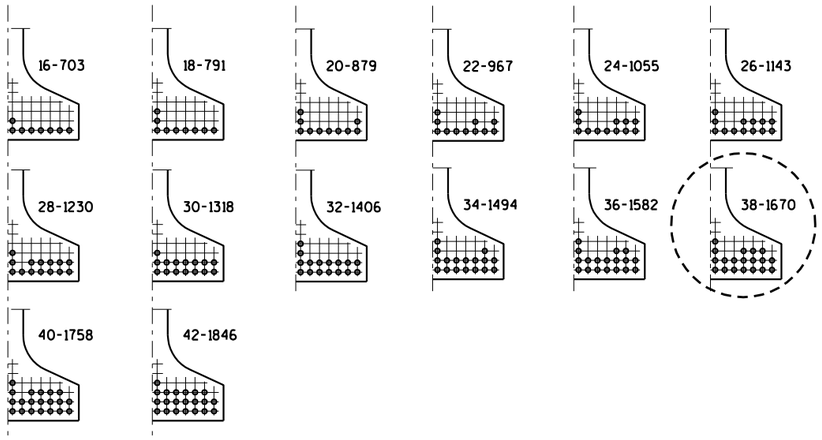
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$PRFNAME$
I:±42±42-1310.00 - Marathon Co, CTH U over US51 Repair±CADD±Final±B-37-436 pg54w.dgn



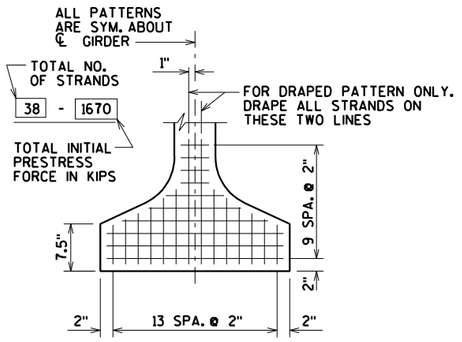
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"ϕ STRANDS

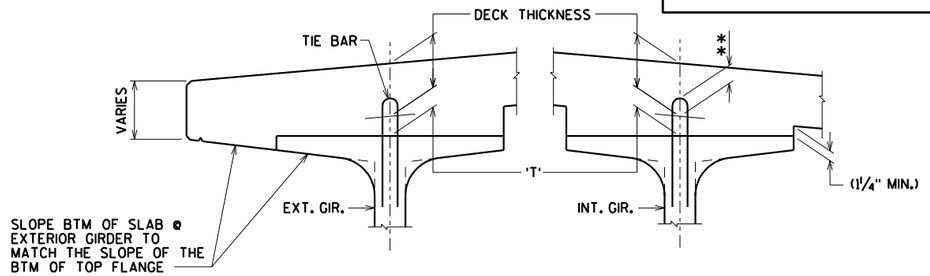


ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"ϕ STRANDS



TYP. STRAND PATTERN



DECK HAUNCH DETAIL

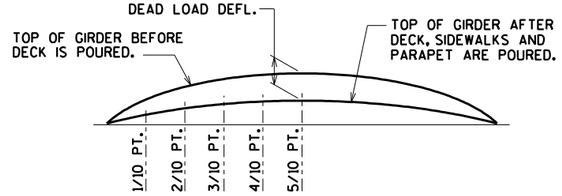
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

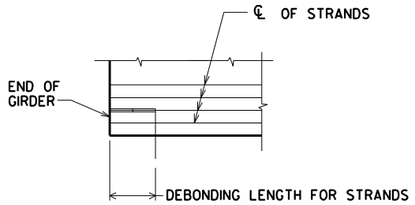
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3⅜" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



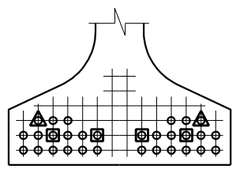
DEAD LOAD DEFLECTION DIAGRAM



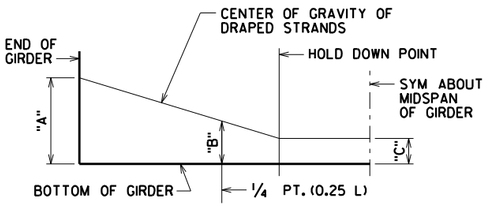
BOND BREAKER DETAIL

SHOWING LENGTHS OF DEBONDING FROM END OF GIRDER.

SYM.	HEIGHT	NO. OF STRANDS	DEBOND LENGTH
□	4"	4	4'
△	6"	2	6'



DEBONDING DETAIL



DRAPED STRAND PROFILE

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	3.8

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T'. USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-436

DRAWN BY CLP | PLANS CK'D. AEB

54W" PRESTRESSED GIRDER DETAILS

SHEET 6 OF 16
174

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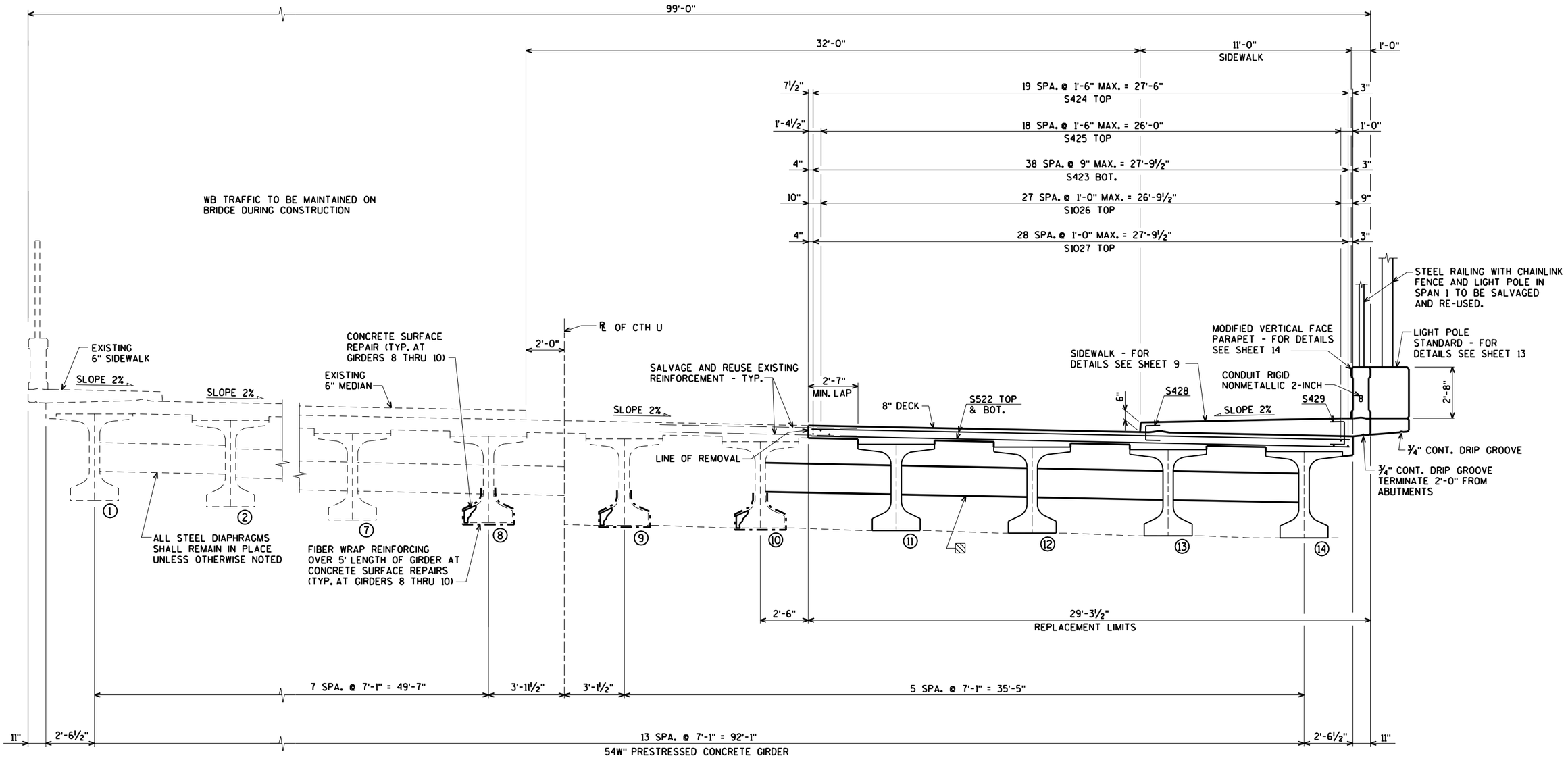
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STATE PROJECT NUMBER

6999-12-71



TYPICAL SECTION THRU BRIDGE

(IN SPAN 1, LOOKING EAST)

▨ REMOVE AND REINSTALL EXISTING DIAPHRAGMS SPAN 1 ONLY BETWEEN GIRDERS 10 & 14. ALL OTHER DIAPHRAGMS TO REMAIN IN PLACE

CONCRETE DECK, SIDEWALK, LIGHT STANDARD, CONCRETE PARAPET AND 54W" PRESTRESSED CONCRETE GIRDERS 11 THRU 14 TO BE REPLACED IN SPAN 1.

EXISTING 54W" PRESTRESSED CONCRETE GIRDERS 8 THRU 10 TO HAVE BOTTOM FLANGE CONCRETE SURFACE REPAIR AND FIBER WRAP AT DAMAGED AREAS.

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-436

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SUPERSTRUCTURE

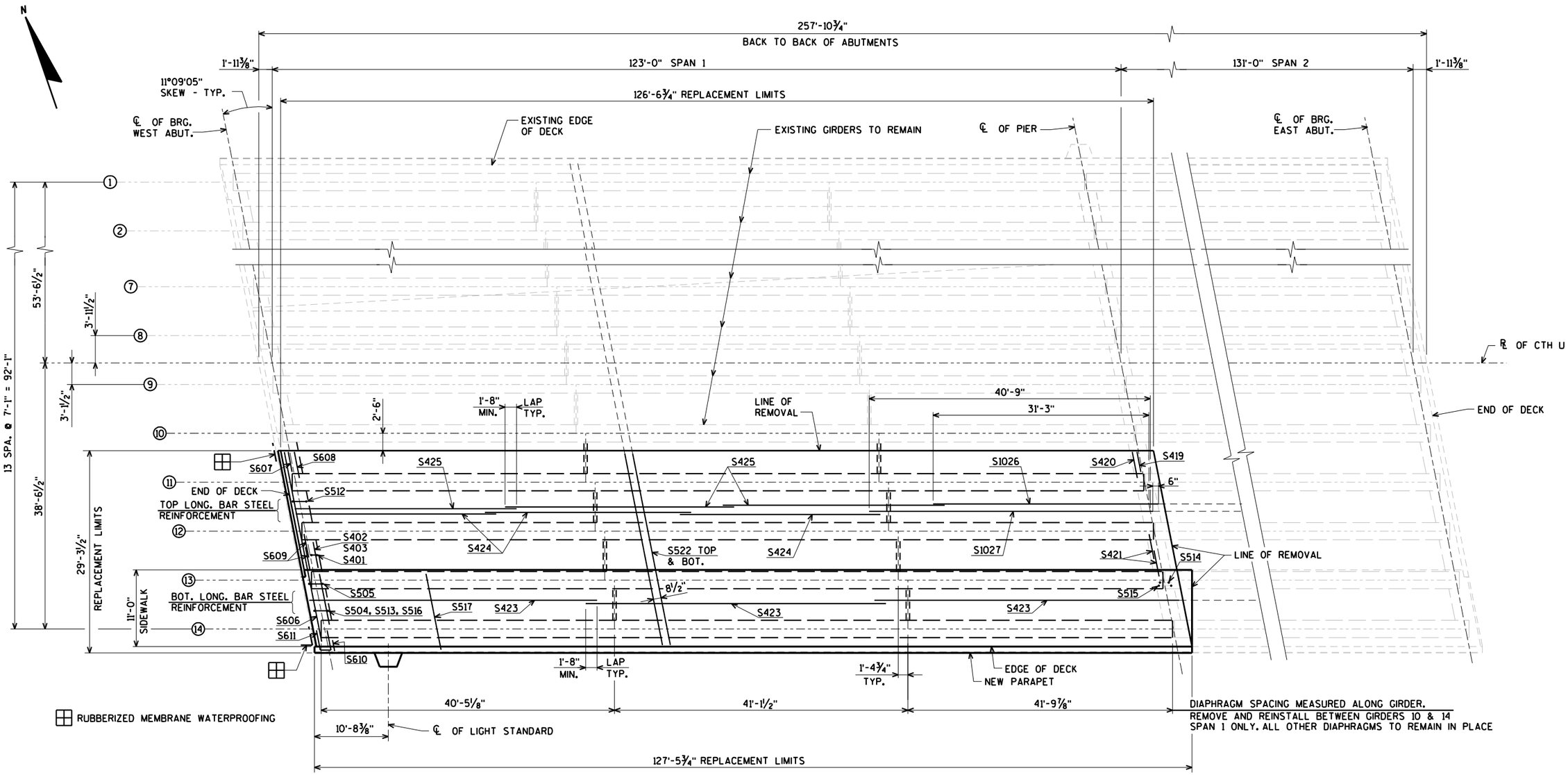
SHEET 7 OF 16
175

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STATE PROJECT NUMBER
6999-12-71



PLAN

ELEVATIONS AT TOP OF DECK

	GIRDER	℄ OF BRG. W. ABUT.	0.1 PT	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	℄ OF PIER
SPAN 1	11	1271.82	1271.76	1271.70	1271.64	1271.58	1271.52	1271.45	1271.39	1271.33	1271.27	1271.21
	12	1271.67	1271.62	1271.55	1271.49	1271.43	1271.37	1271.31	1271.24	1271.18	1271.12	1271.06
	13	1271.52	1271.47	1271.40	1271.34	1271.28	1271.22	1271.16	1271.09	1271.03	1270.97	1270.91
	14	1271.38	1271.32	1271.25	1271.19	1271.13	1271.07	1271.01	1270.95	1270.88	1270.82	1270.76
	SOUTH EOD	1271.32	1271.26	1271.20	1271.14	1271.08	1271.02	1270.95	1270.89	1270.83	1270.77	1270.71

EOD DENOTES EDGE OF DECK

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-436

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SUPERSTRUCTURE PLAN AND DECK ELEVATIONS

SHEET 8 OF 16
176

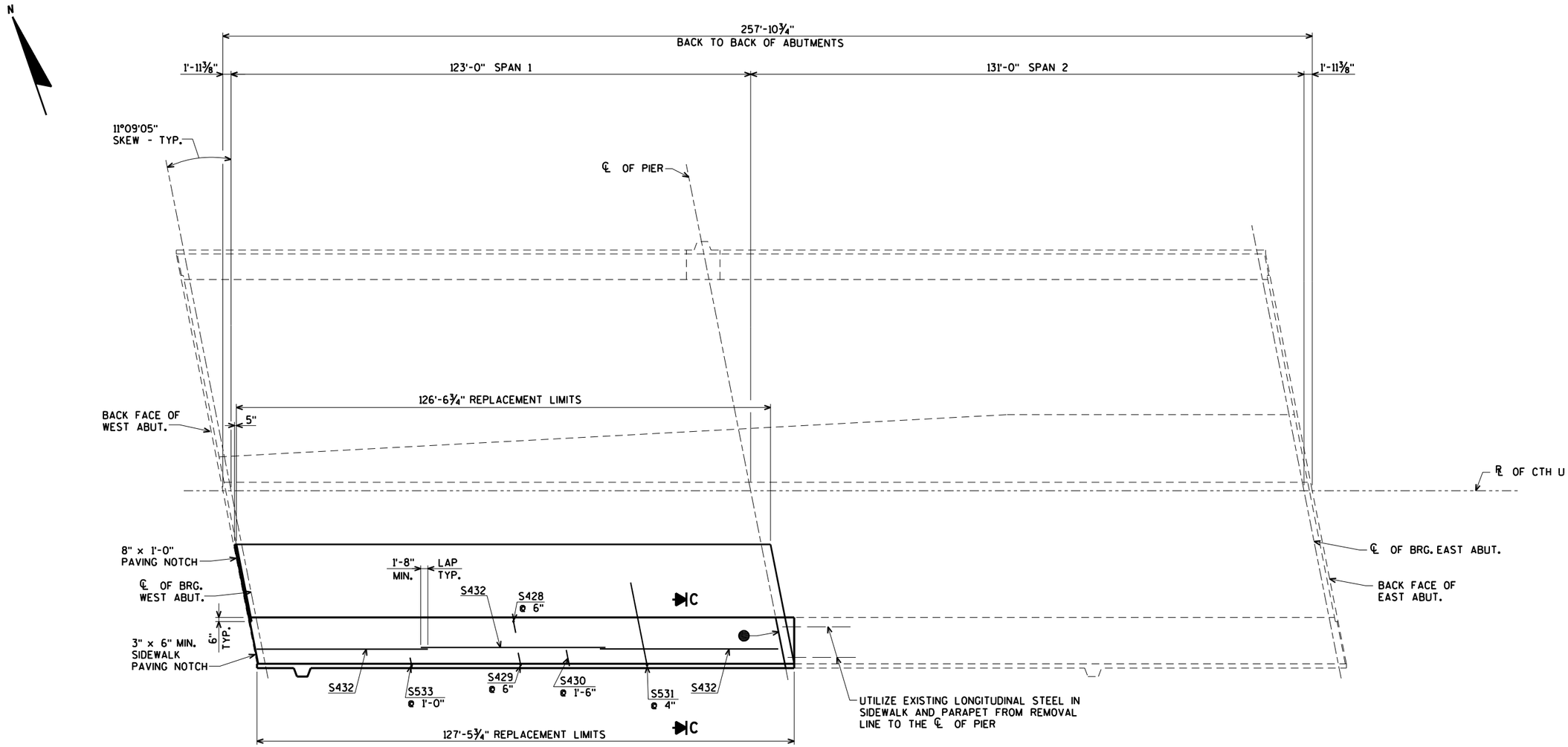
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8

STATE PROJECT NUMBER
6999-12-71



PLAN
(SIDEWALK)

FOR SECTION C SEE SHEET 11.

● DENOTES DEFLECTION JOINT
IN SIDEWALK AND PARAPET.
FOR DETAILS SEE SHEET 14.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-436

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SUPERSTRUCTURE
SIDEWALK
PLAN

SHEET 9 OF 16
177

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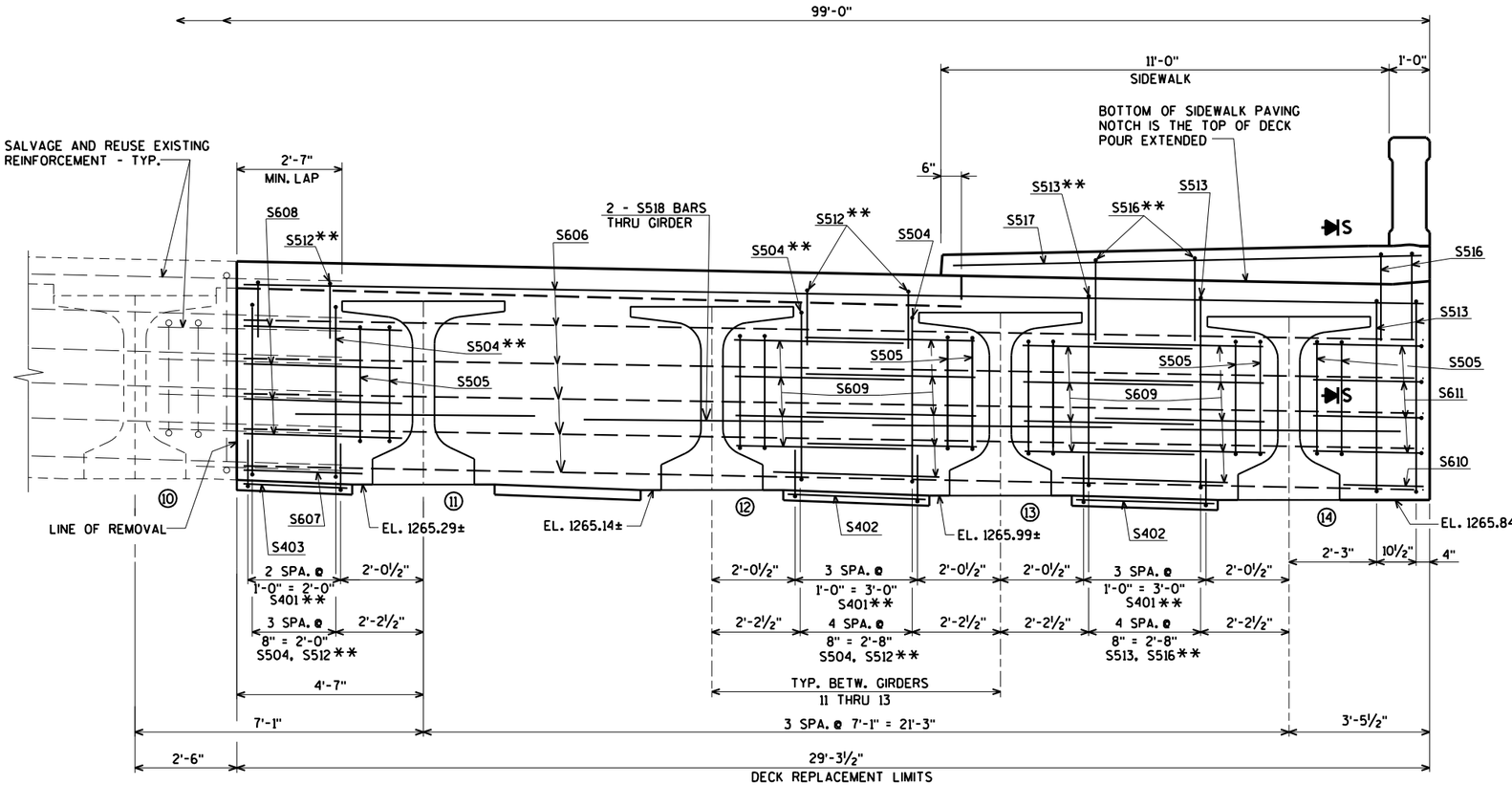
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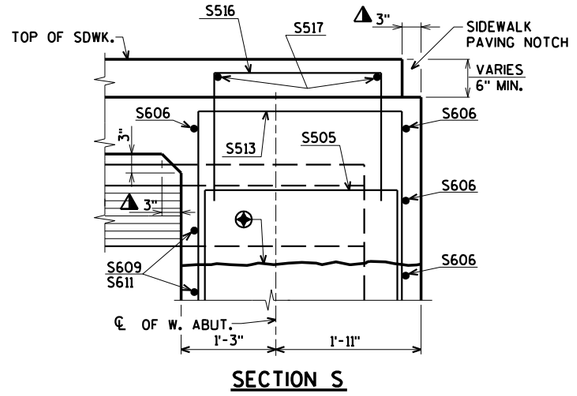
STATE PROJECT NUMBER

6999-12-71

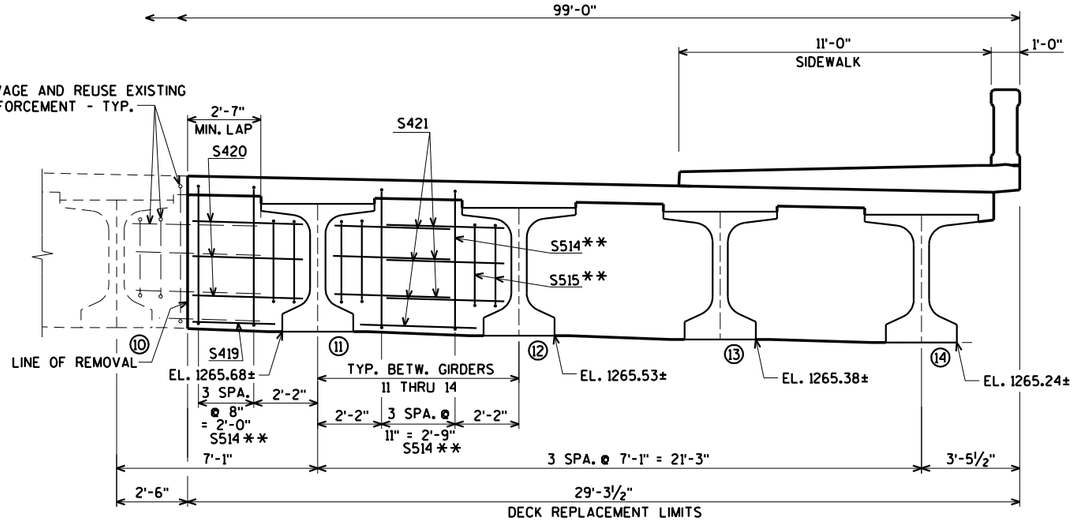


TYPICAL SECTION AT WEST ABUTMENT

(LOOKING EAST)



SECTION S



TYPICAL SECTION AT PIER

(LOOKING EAST)

▲ DIMENSIONS MEASURED NORMAL TO ℄ OF SUBSTRUCTURE UNIT.

⊕ OPTIONAL CONSTRUCTION JOINT 1'-2" BELOW TOP OF GIRDER. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.

** BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ GIRDERS.

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STRUCTURE B-37-436

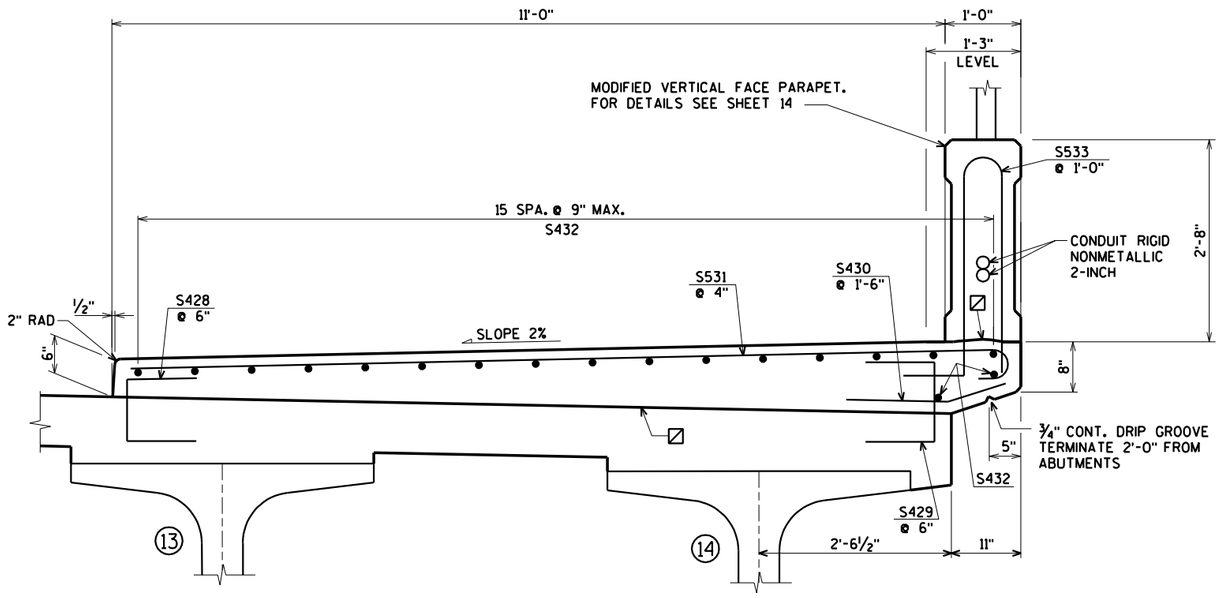
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SUPERSTRUCTURE DETAILS

SHEET 10 OF 16
178

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SECTION C
(LOOKING EAST)

☒ CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH. FOR DECK POUR, MATCH BRIDGE CROSS SLOPE.

NOTES

STEEL SPLICE (COUPLER) ASSEMBLY SHALL BE AN APPROVED TYPE AND SHALL DEVELOP IN TENSION AT LEAST 125% OF THE YIELD STRENGTH OF THE SPLICED REINFORCEMENT BARS.

DOWEL BAR SPLICERS SHALL BE OF MINIMUM 60 ksi YIELD STRENGTH, AND HAVE TENSILE STRENGTH AREA EQUAL OR GREATER THAN THAT OF THE LAPPED REINFORCEMENT BARS.

DOWEL BAR SPLICERS SHALL MEET THE DEFORMATION REQUIREMENTS FOR STANDARD ASTM DEFORMED REINFORCING BARS.

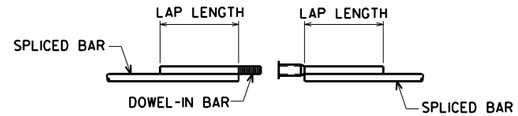
FOR DOWEL BAR SPLICERS, ALL REINFORCEMENT BARS SHALL BE LAPPED AND TIED TO THE SPLICER BARS.

SPLICER (COUPLER) ASSEMBLY IN THE DECK SHALL BE EPOXY COATED IN ACCORDANCE WITH THE REQUIREMENTS FOR REINFORCEMENT BARS.

OTHER SYSTEMS OF SIMILAR DESIGN MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL. APPROVAL SHALL BE BASED ON CERTIFIED TEST RESULTS FROM AN APPROVED TESTING LABORATORY THAT THE PROPOSED SPLICER (COUPLER) ASSEMBLY SATISFIES THE FOLLOWING REQUIREMENT:

① MINIMUM CAPACITY = 1.25 X fy X AREA OF SPLICED REINFORCEMENT BAR.

WHERE fy = YIELD STRENGTH OF SPLICED REINFORCEMENT BARS

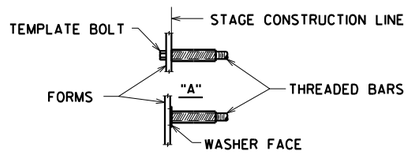


DOWEL BAR SPLICER



ONE PIECE THREADED SPLICER

SPLICER ALTERNATIVES



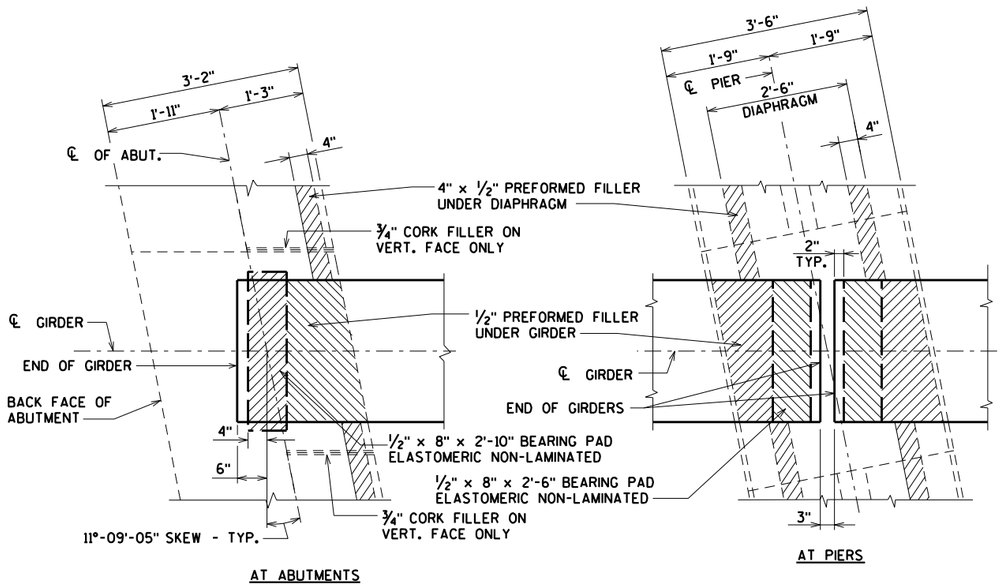
INSTALLATION AND SETTING METHODS

"A" SET SPLICER BY MEANS OF A TEMPLATE BOLT
"B" SET SPLICER BY NAILING TO WOOD FORMS OR CEMENTING TO STEEL FORMS.

DOWEL BAR SPLICER LAP LENGTHS

CONCRETE UNDER BAR	BAR SIZE	4	5	6	7	8	9	10	11
12" OR LESS	f'c = 3500	1'-8"	2'-8"	3'-2"	4'-3"	5'-6"	7'-0"	8'-9"	10'-11"
	f'c = 4000	1'-8"	2'-8"	3'-2"	4'-0"	5'-2"	6'-6"	8'-3"	10'-2"
MORE THAN 12"	f'c = 3500	2'-3"	2'-11"	3'-6"	4'-8"	6'-1"	7'-10"	9'-10"	12'-1"
	f'c = 4000	2'-3"	2'-11"	3'-6"	4'-5"	5'-8"	7'-4"	9'-2"	11'-4"

BAR LENGTH COMPUTED TO ℄ LONGIT. JOINT AND SHALL BE MODIFIED IF REQ'D. TO BAR COUPLER MANUFACTURER RECOMMENDATIONS. PAY BASED ON BARS AS DETAILED.



BEARING PAD DETAIL

NO.	DATE	REVISION	BY

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STRUCTURE B-37-436

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SUPERSTRUCTURE DETAILS AND NOTES

SHEET 11 OF 16
179

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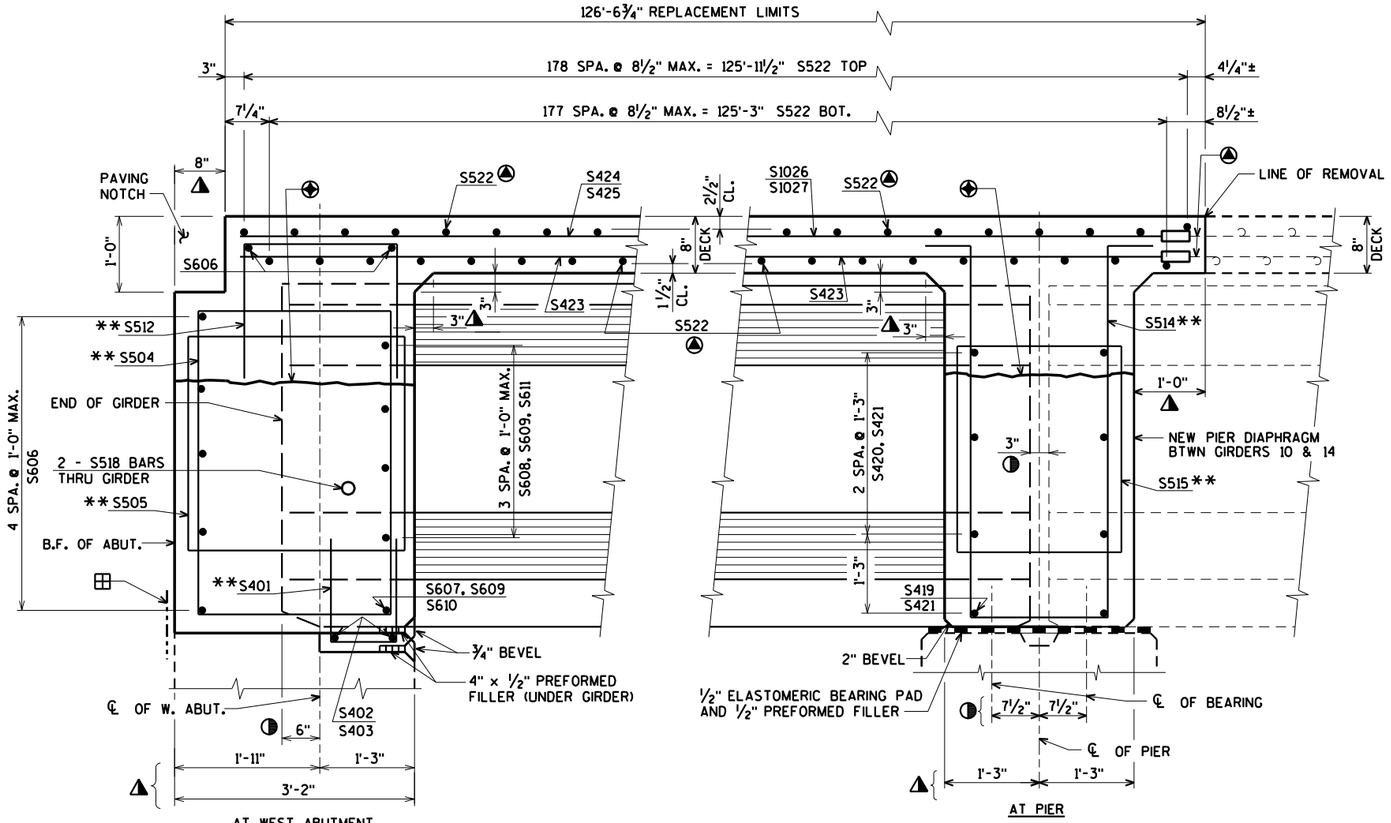
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PART LONGITUDINAL SECTION

BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
S535	2 SERIES OF 4	7'-2" TO 8'-0"
S543	2 SERIES OF 4	6'-7" TO 7'-5"

BUNDLE AND TAG EACH SERIES SEPARATELY.

BILL OF BARS

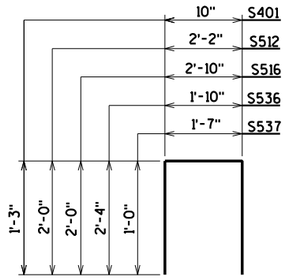
	BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	36,910# COATED LOCATION
	S401	X	15	3-2	X		DIAPH. @ ABUT. VERT. @ NOTCH
	S402	X	6	3-3			DIAPH. @ ABUT. HORIZ. @ NOTCH
	S403	X	2	2-6			DIAPH. @ ABUT. HORIZ. @ NOTCH
	S504	X	14	15-1	X		DIAPH. @ ABUT. VERT. BETW. GDRS. 10 - 13
	S505	X	16	11-9	X		DIAPH. @ ABUT. VERT. @ GDRS.
	S606	X	7	29-5			DIAPH. @ ABUT. HORIZ.
	S607	X	1	3-0			DIAPH. @ ABUT. HORIZ. BETW. GDRS. 10 & 11
	S608	X	4	4-0			DIAPH. @ ABUT. HORIZ. BETW. GDRS. 10 & 11
	S609	X	27	4-3			DIAPH. @ ABUT. HORIZ. BETW. GDRS. 11 - 14
	S610	X	1	1-10			DIAPH. @ ABUT. HORIZ. @ EXT. GDR. 14
	S611	X	4	8-0	X		DIAPH. @ ABUT. HORIZ. @ EXT. GDR. 14
	S512	X	14	5-11	X		DIAPH. @ ABUT. VERT. BETW. GDRS. 10 - 13
	S513	X	7	16-1	X		DIAPH. @ ABUT. VERT. @ GDRS. 13 & EXT. 14
	S514	X	16	13-2	X		DIAPH. @ PIER VERT.
	S515	X	14	10-5	X		DIAPH. @ PIER VERT.
	S516	X	7	6-7	X		DIAPH. @ ABUT. VERT. @ SIDEWALK
	S517	X	2	11-8			DIAPH. @ ABUT. HORIZ. @ SIDEWALK
⊛	S518	X	8	6-0			DIAPH. @ ABUT. HORIZ. THRU GDR.
	S419	X	1	3-0			DIAPH. @ PIER HORIZ. BETW. GDRS. 10 & 11
	S420	X	3	4-0			DIAPH. @ PIER HORIZ. BETW. GDRS. 10 & 11
	S421	X	21	4-3			DIAPH. @ PIER HORIZ. BETW. GDRS. 11 - 14
	S522	X	357	28-9			SLAB TRANS. BOT. & TOP
⊖	S423	X	117	43-3			SLAB LONG. BOT.
	S424	X	60	29-6			SLAB LONG. TOP
	S425	X	57	32-8			SLAB LONG. TOP
⊖	S1026	X	28	33-6			SLAB LONG. TOP @ PIER
⊖	S1027	X	29	43-0			SLAB LONG. TOP @ PIER
	S428	X	253	2-7	X		SLAB @ SDWK.
	S429	X	253	3-0	X		SLAB @ SDWK.
	S430	X	85	1-10	X		SDWK. TRANS. BOT.
	S531	X	380	12-2	X		SDWK. TRANS. TOP
	S432	X	54	43-2			SDWK. LONG. BOT. & TOP
	S533	X	127	6-8	X		PARAPET MOD. VERT.
	S434	X	18	43-4			PARAPET MOD. HORIZ.
⊗	S535	X	8	7-7	X		SIDEWALK TOP @ LIGHT STANDARD
	S536	X	4	8-11	X		SIDEWALK TOP @ LIGHT STANDARD
	S537	X	4	6-3	X		PARAPET VERT. @ LIGHT STANDARD
	S538	X	4	7-1	X		PARAPET VERT. @ LIGHT STANDARD
	S639	X	7	10-0	X		PARAPET HORIZ. @ LIGHT STANDARD
	S540	X	4	8-4			SIDEWALK BOT. @ LIGHT STANDARD
	S541	X	2	3-2	X		PARAPET VERT. @ LIGHT STANDARD
	S542	X	2	3-5	X		PARAPET VERT. @ LIGHT STANDARD
⊗	S543	X	8	7-0			SIDEWALK BOT. @ LIGHT STANDARD

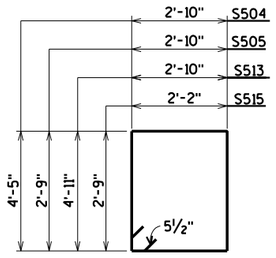
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

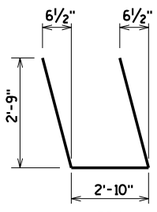
⊛ FIELD BEND ALONG SKEW.

⊗ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

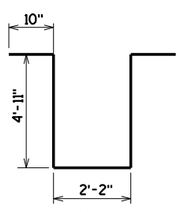
⊖ BAR COUPLER REQUIRED TO SPLICE TO EXISTING DECK LONGITUDINAL REINFORCEMENT.



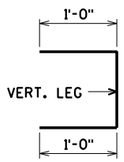




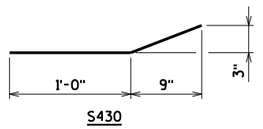
S611



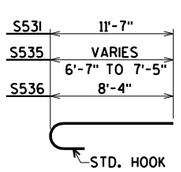
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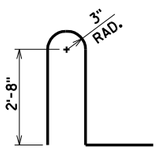


S428, S429

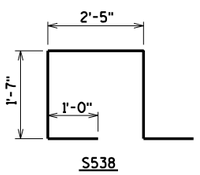


S430

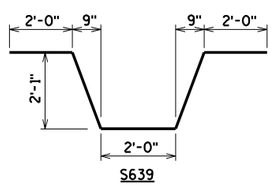




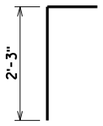
S533



S538



S639



S541

▲ DIMENSIONS MEASURED NORMAL TO ℄ OF SUBSTRUCTURE UNIT.

◑ DIMENSIONS MEASURED ALONG ℄ OF GIRDER.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING

⊕ OPTIONAL CONSTRUCTION JOINT 1'-2" BELOW TOP OF GIRDER. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.

⊛ SALVAGE AND REUSE EXISTING REINFORCEMENT.

** BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ GIRDERS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-436

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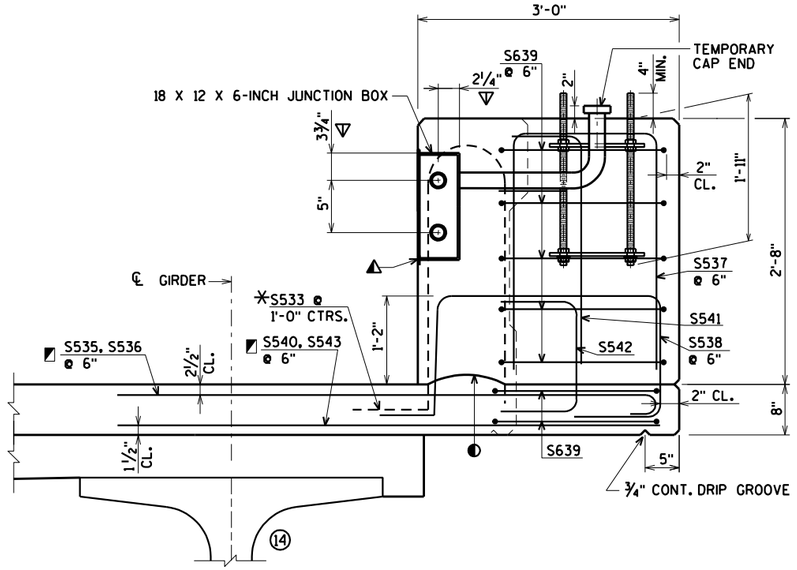
SUPERSTRUCTURE DETAILS AND BILL OF BARS

SHEET 12 OF 16
180

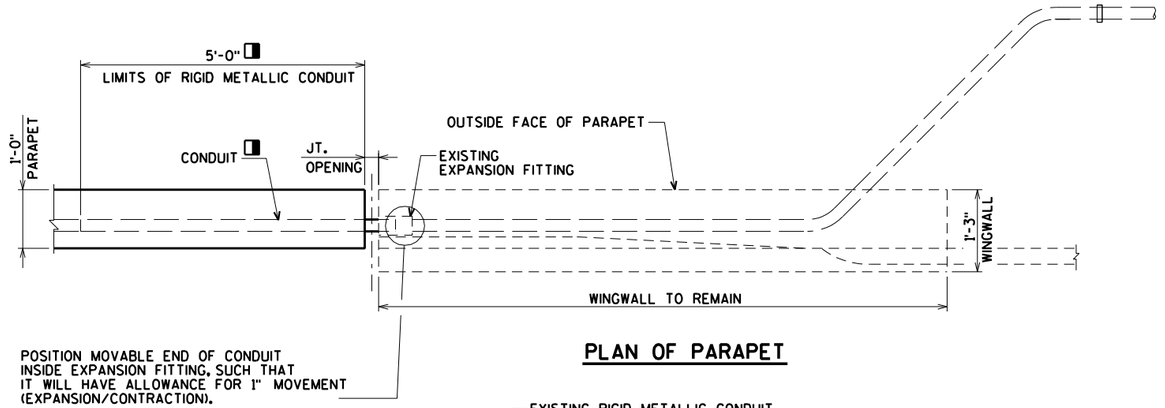
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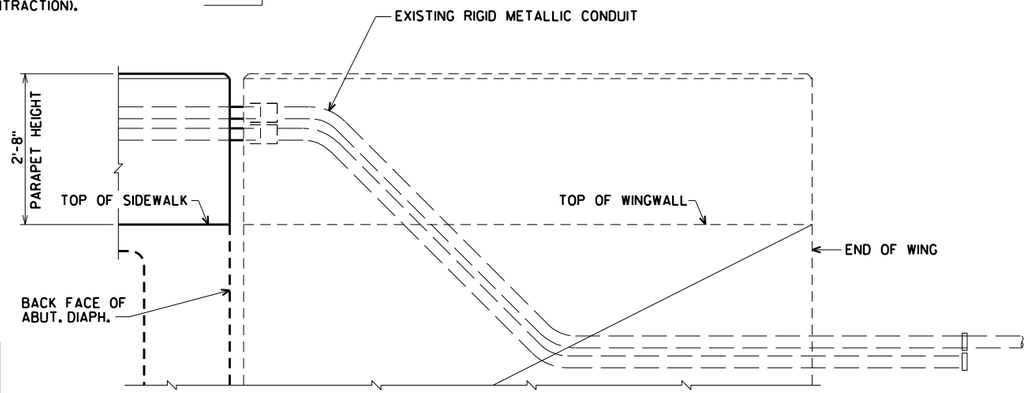
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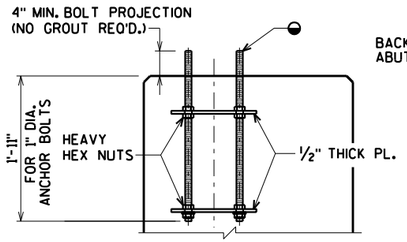
SECTION A



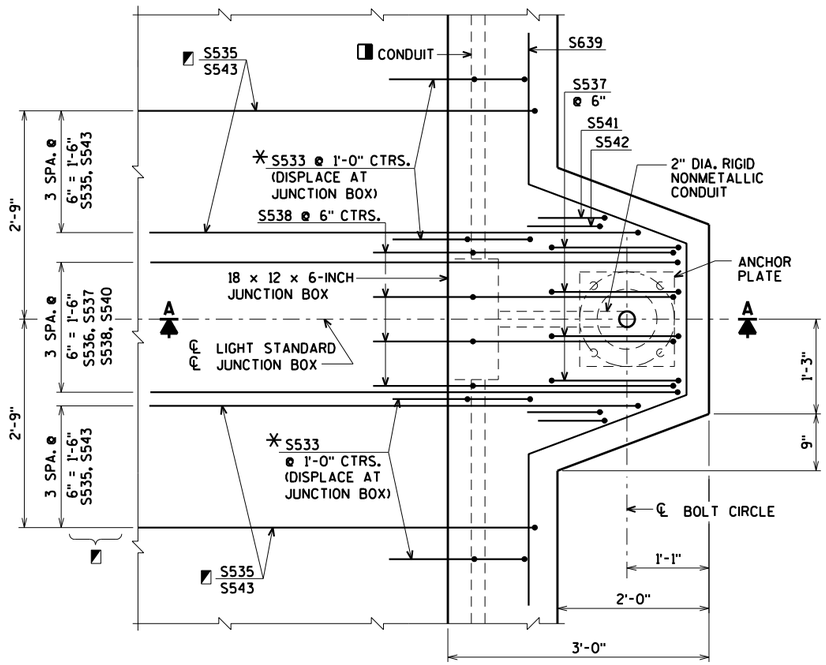
PLAN OF PARAPET



OUTSIDE ELEVATION OF PARAPET



ANCHORAGE DETAIL



PLAN AT LIGHT STANDARD

- ◐ CONSTR. JT. STRIKE OFF AS SHOWN
- ◭ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.
- ▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.
- ◩ THESE BARS ARE IN ADDITION TO STANDARD TRANSVERSE BARS IN SIDEWALK.
- ◒ ANCHOR BOLTS ASTM A449 OR AASHTO M 314-90 GR 55, HOT DIP ASTM A153, CLASS C, UPPER 8" (MIN.) OF BOLT INCLUDING NUTS & WASHERS. PROVIDE ENLARGED THREAD ON NUTS FOR PROPER FIT AFTER GALVANIZING. PROVIDE DOUBLE FLAT WASHERS & NUTS.
- * SEE PARAPET SHEET FOR ADDITIONAL BAR STEEL DETAILS.
- ◨ USE 2" DIA. RIGID NONMETALLIC CONDUIT EXCEPT AT EXPANSION FITTING. AT EXPANSION FITTING USE RIGID METALLIC CONDUIT 5'-0" INTO PARAPET ON DECK SIDE.

TABLE FOR EXISTING "TYPE 5 LIGHT POLE" TO BE SALVAGED AND RE-USED FROM FACILITIES DEV. MANUAL WITH 1" DIA. ANCHOR BOLTS.

SQ	1'-1½"
E	2 11/16 "
W	8⅛"
BC	11½"
D	9½"

W = 0.707 x BC
SQ = BC + 2d
d = ANCHOR BOLT DIA.
E = (SQ-W) /2
DMAX. = BC - 2d
DMIN. = 2 x CONDUIT DIA. + 1"

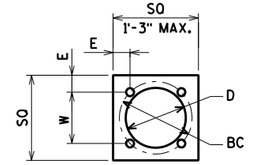


PLATE DETAIL

NOTES

BID ITEMS SHALL BE:
"JUNCTION BOXES 18 x 6 x 6-INCH", EACH.
"ANCHOR ASSEMBLIES LIGHT POLES", EACH.
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH"
"CONDUIT RIGID METALLIC 2-INCH".

APPROVED MANUFACTURERS - JUNCTION BOXES:
SEE APPROVED MATERIAL LIST.

WHEN CONNECTING NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. LISTED FOR ELECTRICAL USE SHALL BE USED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-436

DRAWN BY CLP | PLANS CK'D. AEB

LIGHTING DETAILS

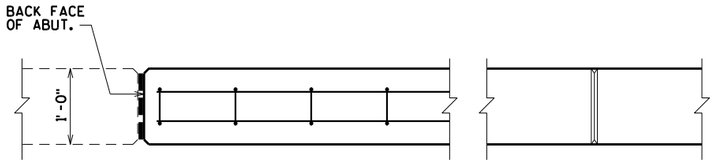
SHEET 13 OF 16
181

ORIGINAL PLANS PREPARED BY
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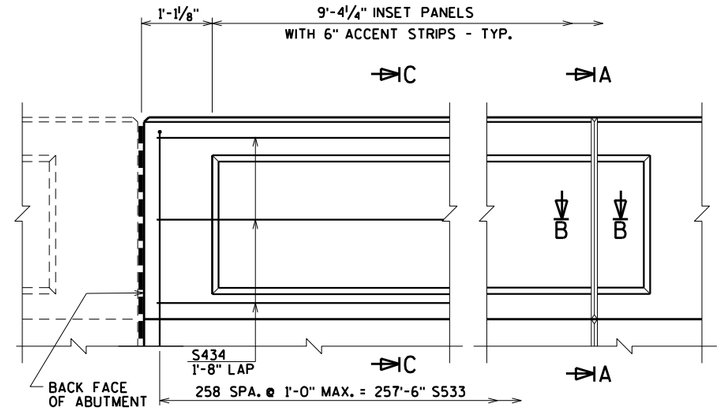
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STATE PROJECT NUMBER

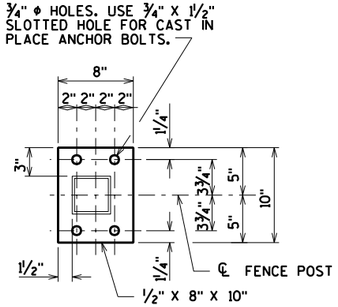
6999-12-71



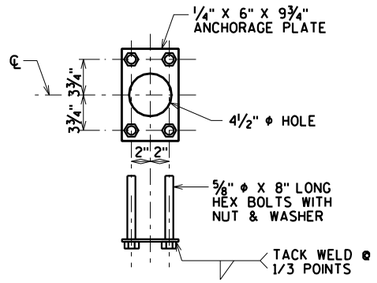
PLAN



ELEVATION OF PARAPET
(INSIDE FACE SHOWN)

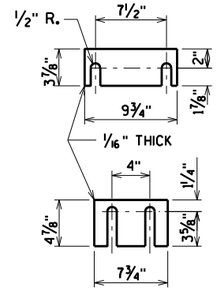


EXISTING BASE PLATE



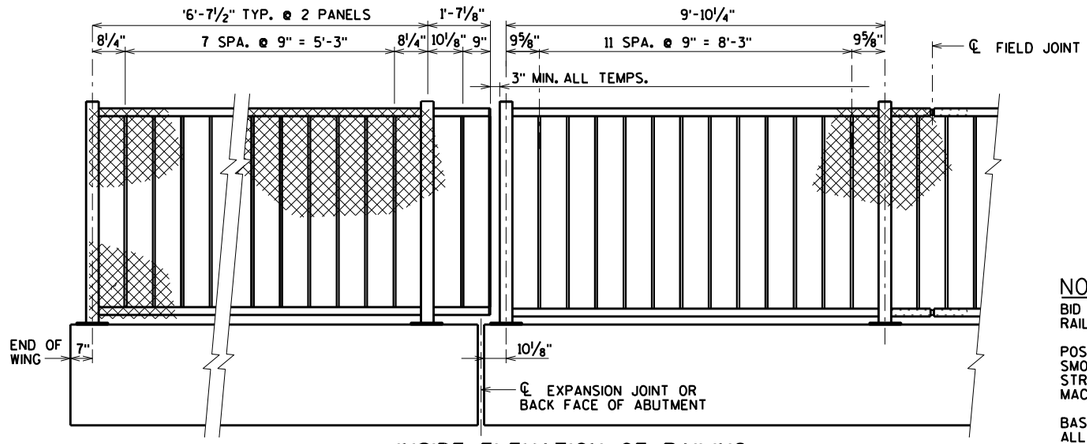
ANCHORAGE DETAIL

⅝" ϕ CONCRETE MASONRY ANCHOR, TYPE S EPOXY, 7" MINIMUM EMBEDMENT WITH A MINIMUM PULLOUT OF 20 KIPS MAY BE SUBSTITUTED FOR ⅝" CAST IN PLACE ANCHOR BOLTS. ANCHORAGE PLATE NOT REQUIRED WHEN TYPE S ANCHORS ARE USED.

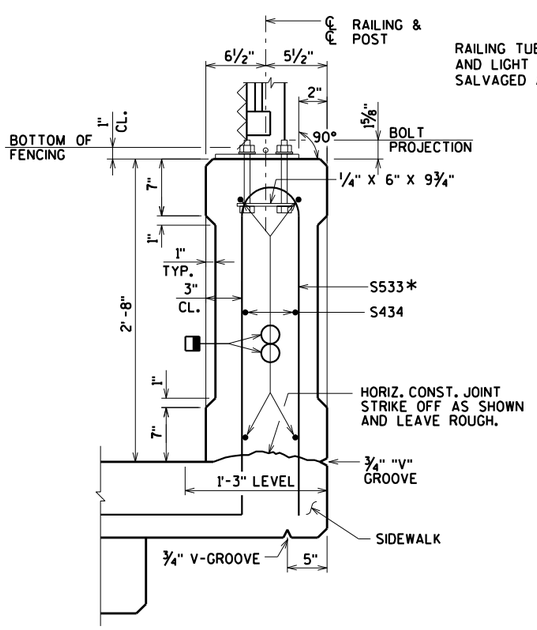


SHIM PLATE DETAILS

TWO SHIMS OF EACH SIZE REQUIRED PER POST



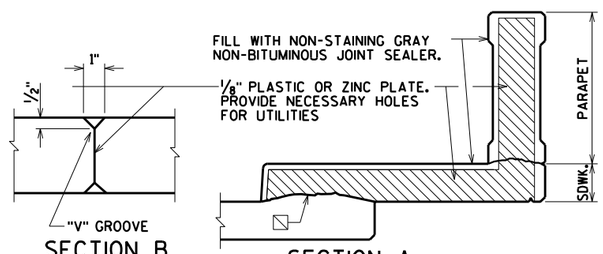
INSIDE ELEVATION OF RAILING



RAILING TUBULAR SCREENING AND LIGHT POLE TO BE SALVAGED AND RE-USED.

SECTION C ON BRIDGE

* ADJUST LOCATIONS OF BARS TO ALLOW PLACEMENT OF ANCHOR ASSEMBLY FOR RAILING



SECTION B

SECTION A

(SHOWING DEFLECTION JOINT IN PARAPET AND SIDEWALK.)

WHEN PARAPETS ARE POURED CONTINUOUSLY FROM END TO END, THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF ⅛" ZINC OR PLASTIC PLATE CUT AS SHOWN IN SECTION A-A BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS ARE USED AT THE DEFLECTION JOINTS, ONE SIDE OF JOINT SHALL BE COATED WITH AN APPROVED LIQUID BOND BREAKER AND PLATE SEPARATORS MAY BE OMITTED.

▨ HORIZ. CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.

◨ 2" DIA. CONDUIT. FOR DETAILS SEE SHEET 13.

NOTES

BID ITEM SHALL BE "REMOVING AND RESETTING TUBULAR RAILING B-37-436" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES AND SHIMS TO BE ASTM A709, GRADE 36. ALL GALVANIZED AFTER FABRICATION.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET POSTS NORMAL TO GRADE.

ALL POST SPA. BASED ON ORIGINAL PLANS AND ARE TAKEN HORIZ. ALONG CENTER LINE OF RAILING AT BASE OF POST.

SHIMS SHALL BE USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM 307. IF 307 IS USED, ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED.

THE END OF THE FABRIC SHALL BE ATTACHED TO THE POST BY MEANS OF A TENSION BAR THREADED THROUGH THE END LOOPS OF THE FABRIC AND SECURED TO THE POST WITH CLAMPS & BOLT. THE FABRIC SHALL BE STRETCHED TO REMOVE ALL SLACK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-436

DRAWN BY	CLP	PLANS CK'D.	AEB

MODIFIED VERTICAL FACE PARAPET

SHEET 14 OF 16
182

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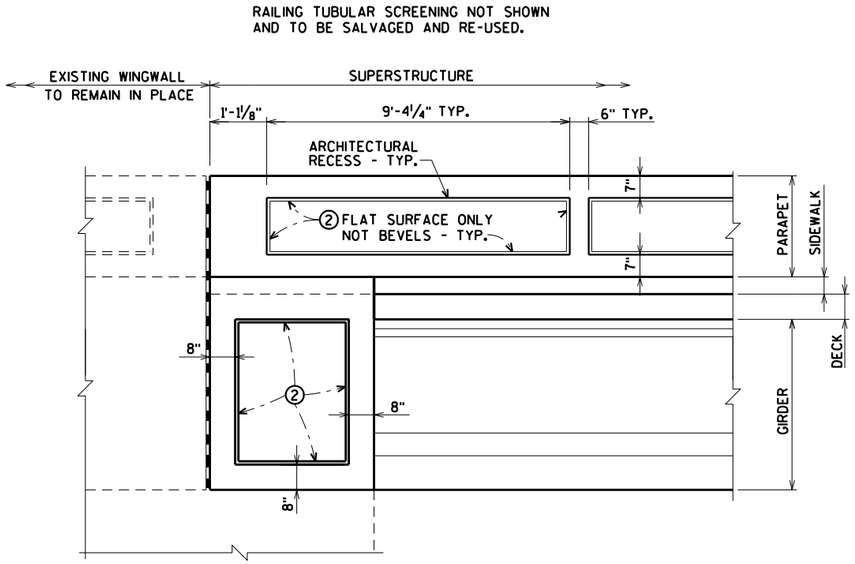
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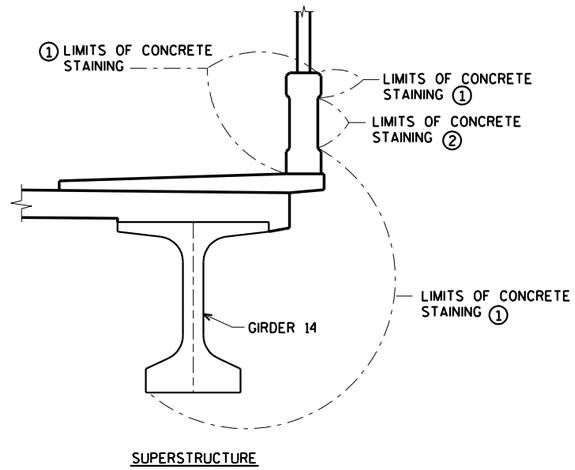
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4/20/2022

PENTABLE:BReau_shd_util.tbl





SUPERSTRUCTURE

1. FEDERAL STANDARD COLOR NUMBER 36424 (MEDIUM GRAY).
2. FEDERAL STANDARD COLOR NUMBER 30372 (SAND).
   NOTE: APPLY TO FLAT SURFACE ONLY (NOT BEVELS).

ARCHITECTURAL TREATMENT AND CONCRETE STAINING DETAILS

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-436

DRAWN BY CLP | PLANS CK'D. AEB

ARCHITECTURAL TREATMENT DETAILS

SHEET 15 OF 16
183

ORIGINAL PLANS PREPARED BY
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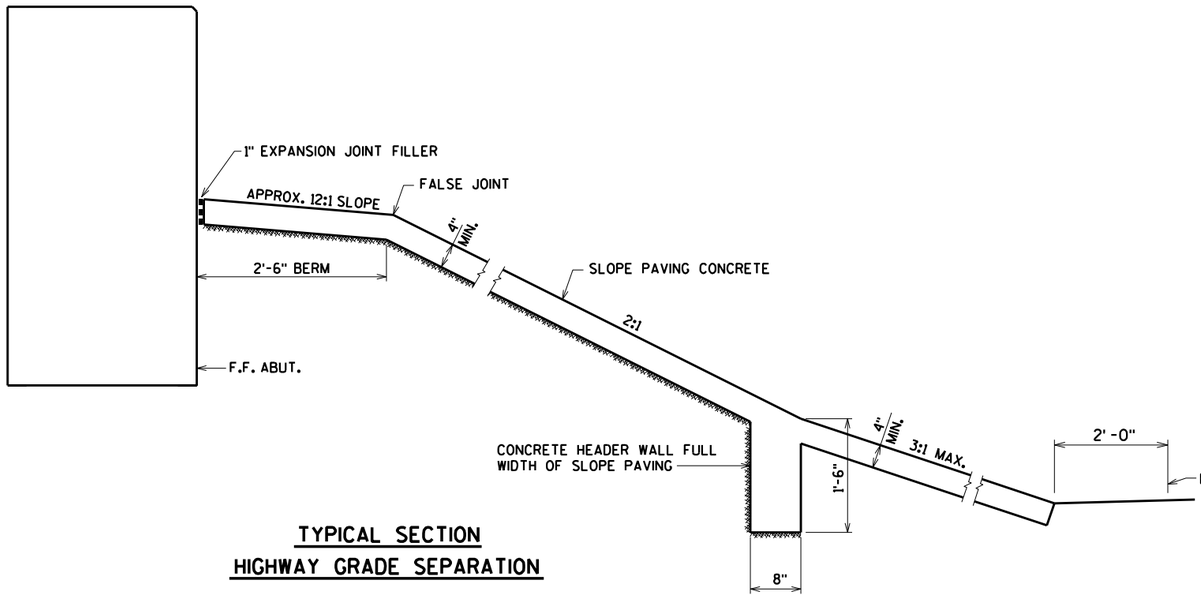
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4/13/2022

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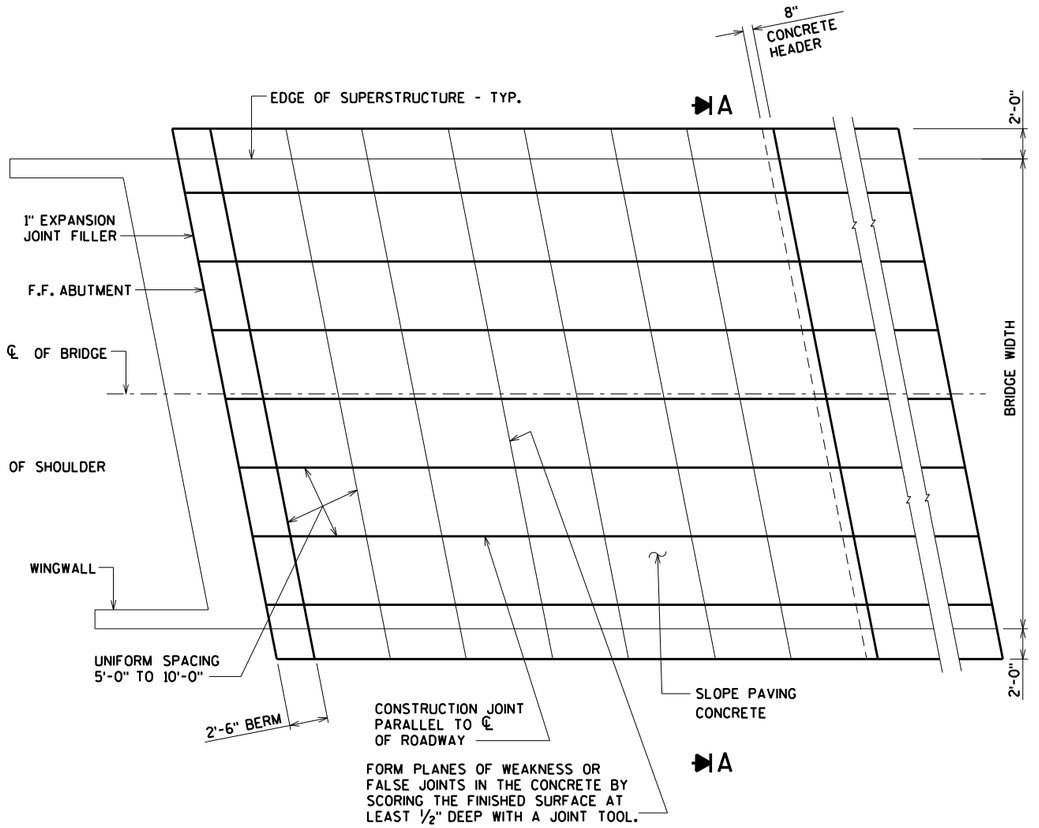
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STATE PROJECT NUMBER
6999-12-71

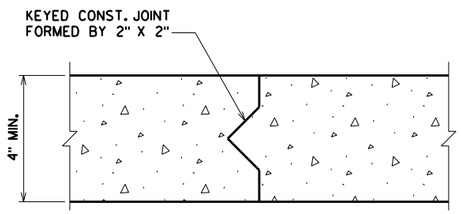


TYPICAL SECTION
HIGHWAY GRADE SEPARATION

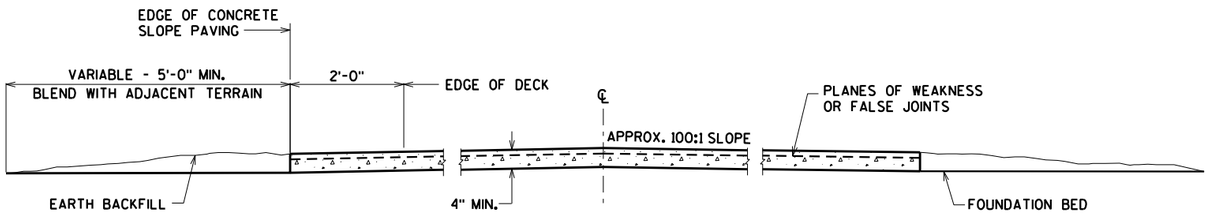
NOTE:
DURING DEMOLITION OF GIRDERS 11 TO 14, POSSIBLE DAMAGE MAY OCCUR TO THE SLOPE PAVING. IF SO, USE THESE DETAILS TO BUILD SLOPE PAVING BACK TO ORIGINAL CONDITION.



PLAN



CONSTRUCTION JOINT DETAIL



SECTION A

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN HEREON SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-37-436

DRAWN BY CLP | PLANS CK'D. AEB

SLOPE PAVING

SHEET 16 OF 16
184

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8

8

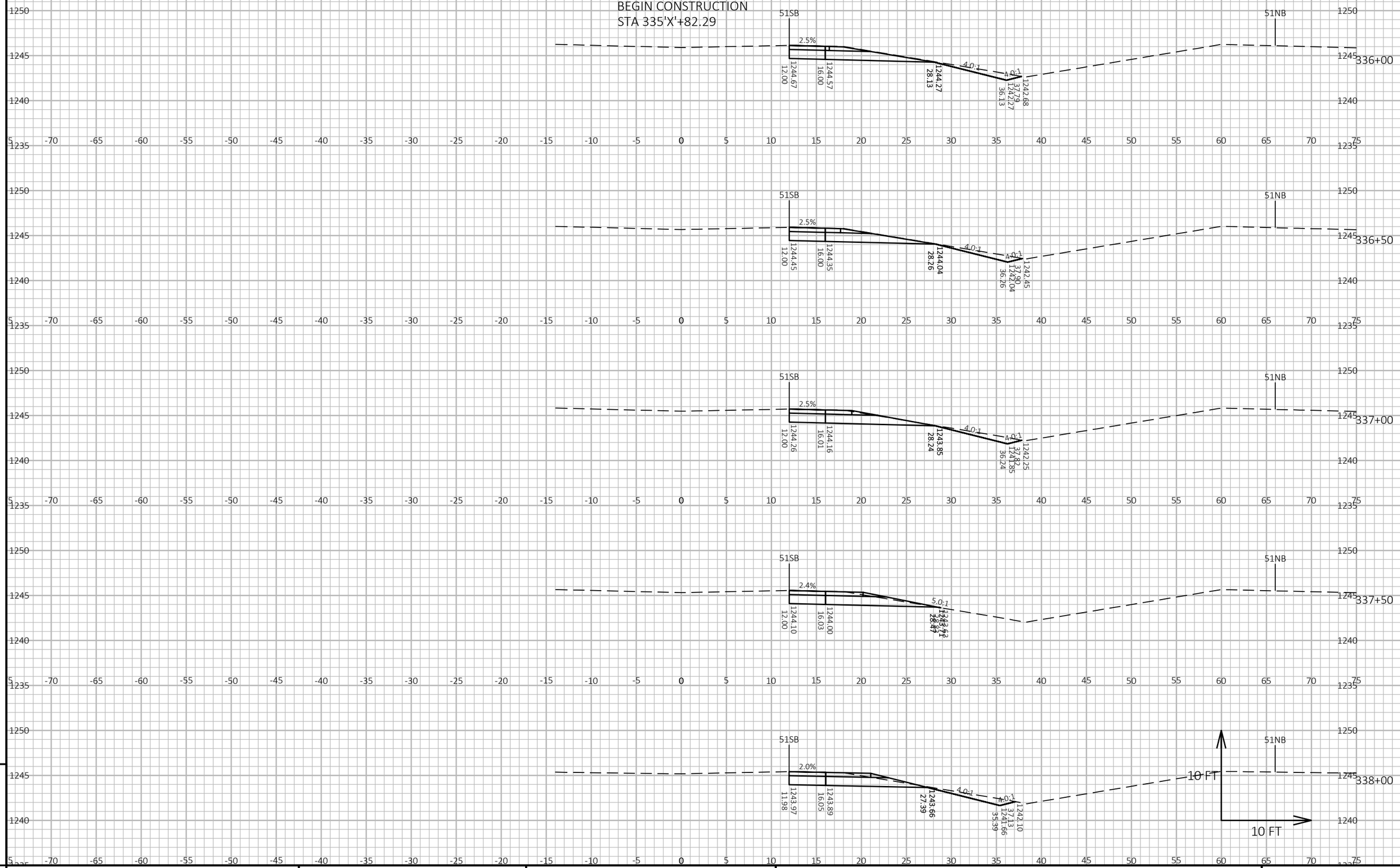
DIVISION 1 - ALL XOVER

STATION	AREA (SF) CUT	AREA (SF) FILL	INCREMENTAL VOL (CY) (UNADJUSTED) CUT	INCREMENTAL VOL (CY) (UNADJUSTED) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXPANDED FILL 1.25	CUMULATIVE VOL (CY) MASS ORDINATE
335+82.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
336+00	17.66	0.07	6.00	0.00	6.00	0.00	6.00
336+50	17.52	0.09	33.00	0.00	39.00	0.00	39.00
337+00	17.54	0.08	32.00	0.00	71.00	0.00	71.00
337+50	14.96	0.11	30.00	0.00	101.00	0.00	101.00
338+00	17.31	0.04	30.00	0.00	131.00	0.00	131.00
338+50	16.97	0.08	32.00	0.00	163.00	0.00	163.00
339+00	14.51	0.17	29.00	0.00	192.00	0.00	192.00
339+50	14.50	0.73	27.00	1.00	219.00	1.25	217.75
340+00	14.51	1.98	27.00	3.00	246.00	5.00	241.00
340+22	14.50	2.87	12.00	2.00	258.00	7.50	250.50
340+50	14.51	4.43	15.00	4.00	273.00	12.50	260.50
341+00	14.57	7.46	27.00	11.00	300.00	26.25	273.75
341+50	15.11	10.41	27.00	17.00	327.00	47.50	279.50
342+00	16.95	13.28	30.00	22.00	357.00	75.00	282.00
342+50	21.40	16.03	36.00	27.00	393.00	108.75	284.25
343+00	23.40	17.96	41.00	31.00	434.00	147.50	286.50
343+50	23.10	18.37	43.00	34.00	477.00	190.00	287.00
344+00	25.42	18.88	45.00	34.00	522.00	232.50	289.50
344+50	11.75	19.14	34.00	35.00	556.00	276.25	279.75
345+00	7.24	22.13	18.00	38.00	574.00	323.75	250.25
345+50	6.61	22.31	13.00	41.00	587.00	375.00	212.00
346+00	12.89	13.81	18.00	33.00	605.00	416.25	188.75
346+50	25.91	9.67	36.00	22.00	641.00	443.75	197.25
347+00	35.06	8.34	56.00	17.00	697.00	465.00	232.00
347+50	31.01	8.49	61.00	16.00	758.00	485.00	273.00
348+00	27.20	8.33	54.00	16.00	812.00	505.00	307.00
348+50	22.00	7.35	46.00	15.00	858.00	523.75	334.25
349+00	19.22	5.91	38.00	12.00	896.00	538.75	357.25
349+50	17.88	4.64	34.00	10.00	930.00	551.25	378.75
350+00	17.42	3.61	33.00	8.00	963.00	561.25	401.75
350+50	22.93	0.00	37.00	3.00	1,000.00	565.00	435.00
351+00	27.63	0.00	47.00	0.00	1,047.00	565.00	482.00
351+50	23.70	0.00	48.00	0.00	1,095.00	565.00	530.00
352+00	23.76	0.00	44.00	0.00	1,139.00	565.00	574.00
352+50	25.60	0.00	46.00	0.00	1,185.00	565.00	620.00
353+00	17.17	1.74	40.00	2.00	1,225.00	567.50	657.50
353+08.69	17.06	2.86	6.00	1.00	1,231.00	568.75	662.25
353+50	23.84	7.07	31.00	8.00	1,262.00	578.75	683.25
354+00	28.89	7.41	49.00	13.00	1,311.00	595.00	716.00
354+50	20.60	9.08	46.00	15.00	1,357.00	613.75	743.25
355+00	18.17	16.16	36.00	23.00	1,393.00	642.50	750.50
355+50	14.39	26.61	30.00	40.00	1,423.00	692.50	730.50
356+00	12.44	42.56	25.00	64.00	1,448.00	772.50	675.50
356+50	14.18	56.48	25.00	92.00	1,473.00	887.50	585.50
357+00	14.90	68.23	27.00	115.00	1,500.00	1,031.25	468.75
357+50	13.67	63.68	26.00	122.00	1,526.00	1,183.75	342.25
358+00	13.71	54.49	25.00	109.00	1,551.00	1,320.00	231.00
358+50	13.71	41.73	25.00	89.00	1,576.00	1,431.25	144.75
359+00	13.70	28.94	25.00	65.00	1,601.00	1,512.50	88.50
359+50	13.68	15.23	25.00	41.00	1,626.00	1,563.75	62.25
360+00	13.96	5.18	26.00	19.00	1,652.00	1,587.50	64.50
360+50	14.34	1.36	26.00	6.00	1,678.00	1,595.00	83.00
361+00	14.65	0.36	27.00	2.00	1,705.00	1,597.50	107.50
361+50	14.70	0.38	27.00	1.00	1,732.00	1,598.75	133.25
362+00	15.27	0.06	28.00	0.00	1,760.00	1,598.75	161.25
362+50	14.92	2.02	28.00	2.00	1,788.00	1,601.25	186.75
363+00	15.40	0.96	28.00	3.00	1,816.00	1,605.00	211.00
363+16.72	0.00	0.00	5.00	0.00	1,821.00	1,605.00	216.00

DIVISION 2 - MEDIAN (51NB)

STATION	AREA (SF) CUT	AREA (SF) FILL	INCREMENTAL VOL (CY) (UNADJUSTED) CUT	INCREMENTAL VOL (CY) (UNADJUSTED) FILL	CUMULATIVE VOL (CY) CUT 1.00	CUMULATIVE VOL (CY) EXPANDED FILL 1.25	CUMULATIVE VOL (CY) MASS ORDINATE
735+77.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00
736+00	16.07	2.55	7.00	1.00	7.00	1.25	5.75
736+50	16.26	2.41	30.00	5.00	37.00	7.50	29.50
737+00	17.13	2.41	31.00	4.00	68.00	12.50	55.50
737+50	18.42	0.14	33.00	2.00	101.00	15.00	86.00
738+00	18.51	2.76	34.00	3.00	135.00	18.75	116.25
738+50	19.00	2.40	35.00	5.00	170.00	25.00	145.00
739+00	20.40	0.06	36.00	2.00	206.00	27.50	178.50
739+50	22.24	0.07	39.00	0.00	245.00	27.50	217.50
740+00	25.29	0.11	44.00	0.00	289.00	27.50	261.50
740+50	30.14	0.00	51.00	0.00	340.00	27.50	312.50
741+00	35.77	0.12	61.00	0.00	401.00	27.50	373.50
741+50	41.97	0.84	72.00	1.00	473.00	28.75	444.25
742+00	48.43	3.05	84.00	4.00	557.00	33.75	523.25
742+50	54.93	6.61	96.00	9.00	653.00	45.00	608.00
743+00	60.43	8.62	107.00	14.00	760.00	62.50	697.50
743+50	64.57	9.29	116.00	17.00	876.00	83.75	792.25
744+00	65.70	13.11	121.00	21.00	997.00	110.00	887.00
744+50	75.45	7.35	131.00	19.00	1,128.00	133.75	994.25
745+00	87.44	0.22	151.00	7.00	1,279.00	142.50	1,136.50
745+50	84.30	0.00	159.00	0.00	1,438.00	142.50	1,295.50
746+00	74.25	3.51	147.00	3.00	1,585.00	146.25	1,438.75
746+50	65.11	9.85	129.00	12.00	1,714.00	161.25	1,552.75
747+00	61.37	10.29	117.00	19.00	1,831.00	185.00	1,646.00
747+50	59.31	8.79	112.00	18.00	1,943.00	207.50	1,735.50
748+00	43.45	10.23	95.00	18.00	2,038.00	230.00	1,808.00
748+50	38.58	5.70	76.00	15.00	2,114.00	248.75	1,865.25
749+00	34.71	1.86	68.00	7.00	2,182.00	257.50	1,924.50
749+50	31.07	1.21	61.00	3.00	2,243.00	261.25	1,981.75
750+00	29.24	0.02	56.00	1.00	2,299.00	262.50	2,036.50
750+50	22.77	1.93	48.00	2.00	2,347.00	265.00	2,082.00
751+00	24.57	0.60	44.00	2.00	2,391.00	267.50	2,123.50
751+50	25.57	0.04	46.00	1.00	2,437.00	268.75	2,168.25
752+00	26.70	0.04	48.00	0.00	2,485.00	268.75	2,216.25
752+50	27.77	1.04	50.00	1.00	2,535.00	270.00	2,265.00
753+00	33.32	0.00	57.00	1.00	2,592.00	271.25	2,320.75
753+50	43.60	7.15	71.00	7.00	2,663.00	280.00	2,383.00
754+00	48.35	11.62	85.00	17.00	2,748.00	301.25	2,446.75
754+50	56.73	11.36	97.00	21.00	2,845.00	327.50	2,517.50
755+00	74.08	8.03	121.00	18.00	2,966.00	350.00	2,616.00
755+50	82.03	4.61	145.00	12.00	3,111.00	365.00	2,746.00
756+00	85.83	1.26	155.00	5.00	3,266.00	371.25	2,894.75
756+50	97.38	3.16	170.00	4.00	3,436.00	376.25	3,059.75
757+00	105.60	0.00	188.00	3.00	3,624.00	380.00	3,244.00
757+50	96.32	0.00	187.00	0.00	3,811.00	380.00	3,431.00
758+00	81.27	0.00	164.00	0.00	3,975.00	380.00	3,595.00
758+50	64.79	0.00	135.00	0.00	4,110.00	380.00	3,730.00
759+00	47.34	0.03	104.00	0.00	4,214.00	380.00	3,834.00
759+50	32.25	0.00	74.00	0.00	4,288.00	380.00	3,908.00
760+00	22.61	0.00	51.00	0.00	4,339.00	380.00	3,959.00
760+50	17.44	0.00	37.00	0.00	4,376.00	380.00	3,996.00
761+00	15.65	0.00	31.00	0.00	4,407.00	380.00	4,027.00
761+50	15.31	0.00	29.00	0.00	4,436.00	380.00	4,056.00
762+00	13.84	0.00	27.00	0.00	4,463.00	380.00	4,083.00
762+50	13.11	0.00	25.00	0.00	4,488.00	380.00	4,108.00
763+00	13.45	0.00	25.00	0.00	4,513.00	380.00	4,133.00
763+21.20	0.00	0.00	5.00	0.00	4,518.00	380.00	4,138.00

BEGIN CONSTRUCTION
STA 335'X'+82.29

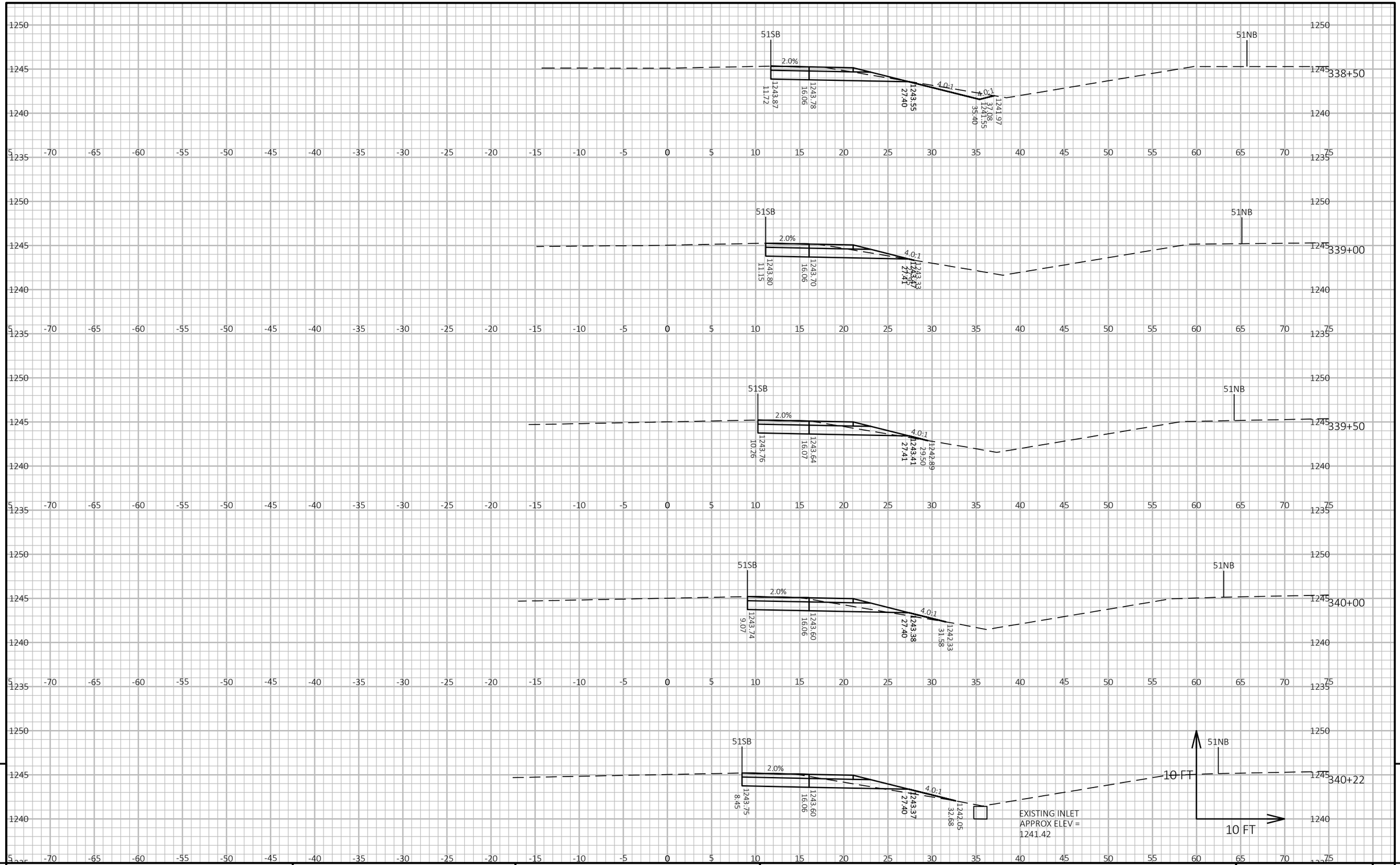


PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER ('X' LINE)	SHEET 186	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-XOVER.DWG
LAYOUT NAME - 1

PLOT DATE : 4/27/2022 11:17 AM PLOT BY : HEDRINGTON, MARK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

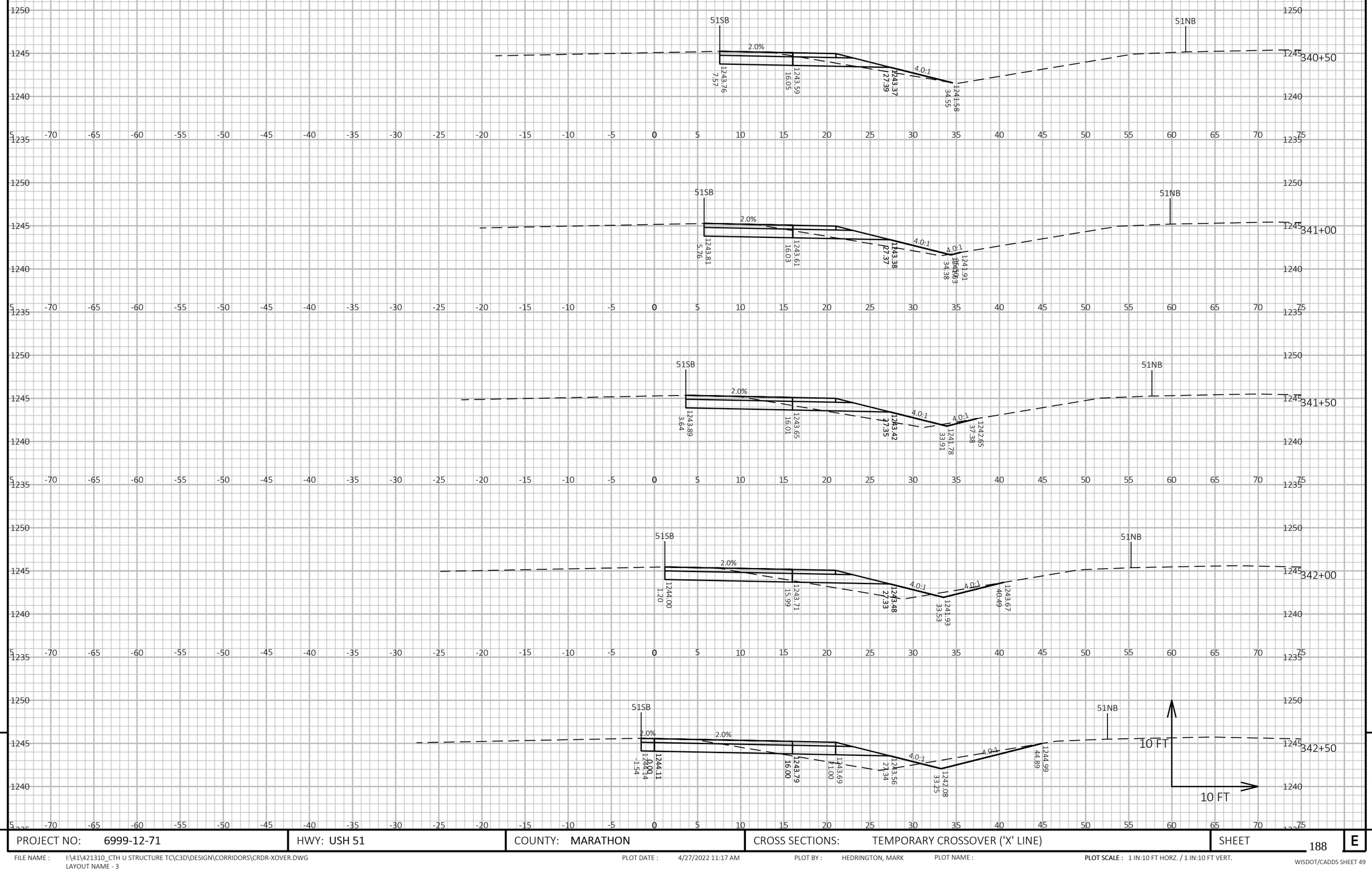
9

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER ('X' LINE)	SHEET 187	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-XOVER.DWG
LAYOUT NAME - 2

PLOT DATE : 4/27/2022 11:17 AM PLOT BY : HEDRINGTON, MARK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

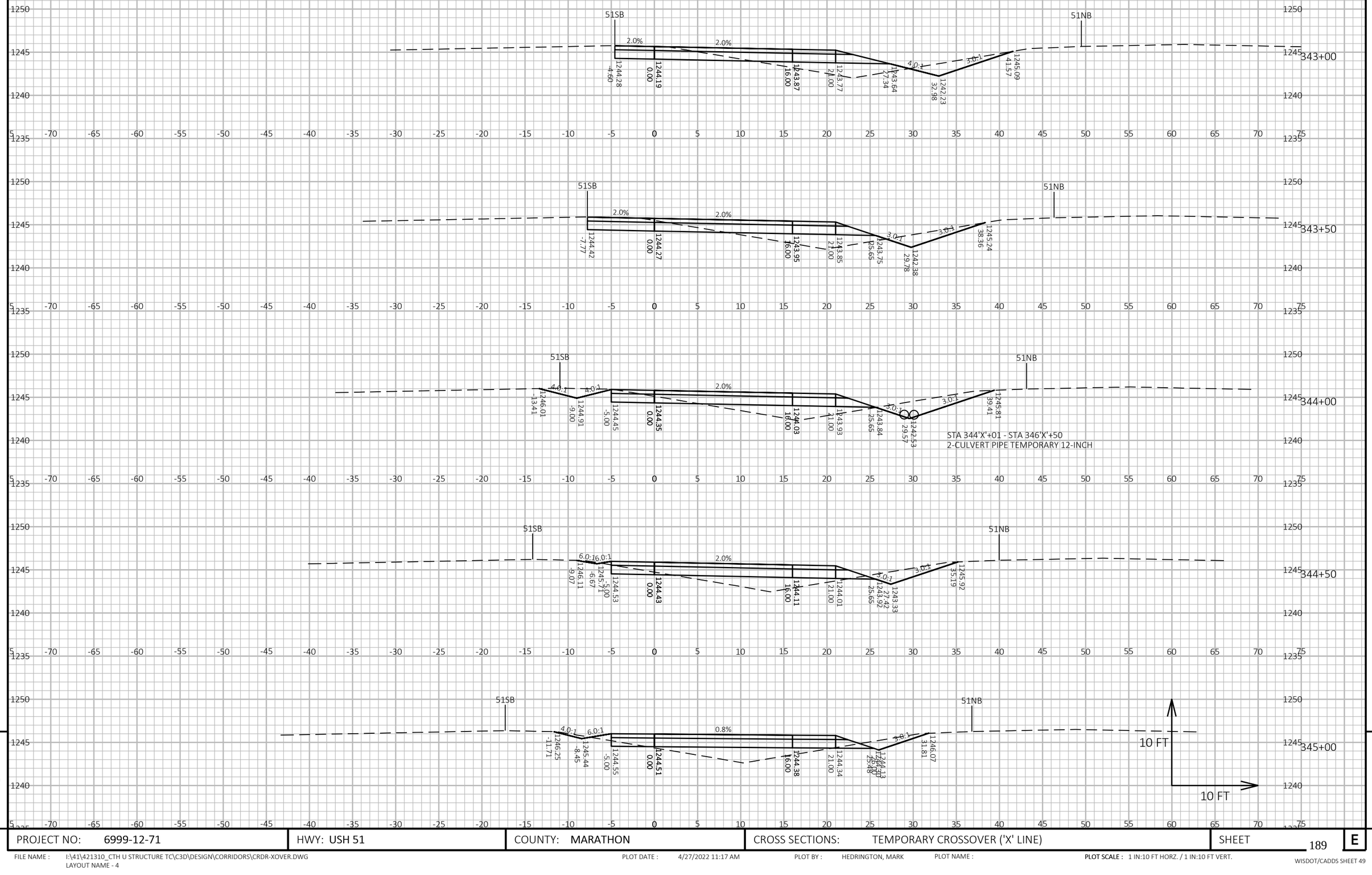
9

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER ('X' LINE)	SHEET 188	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-XOVER.DWG
LAYOUT NAME - 3

PLOT DATE : 4/27/2022 11:17 AM PLOT BY : HEDRINGTON, MARK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

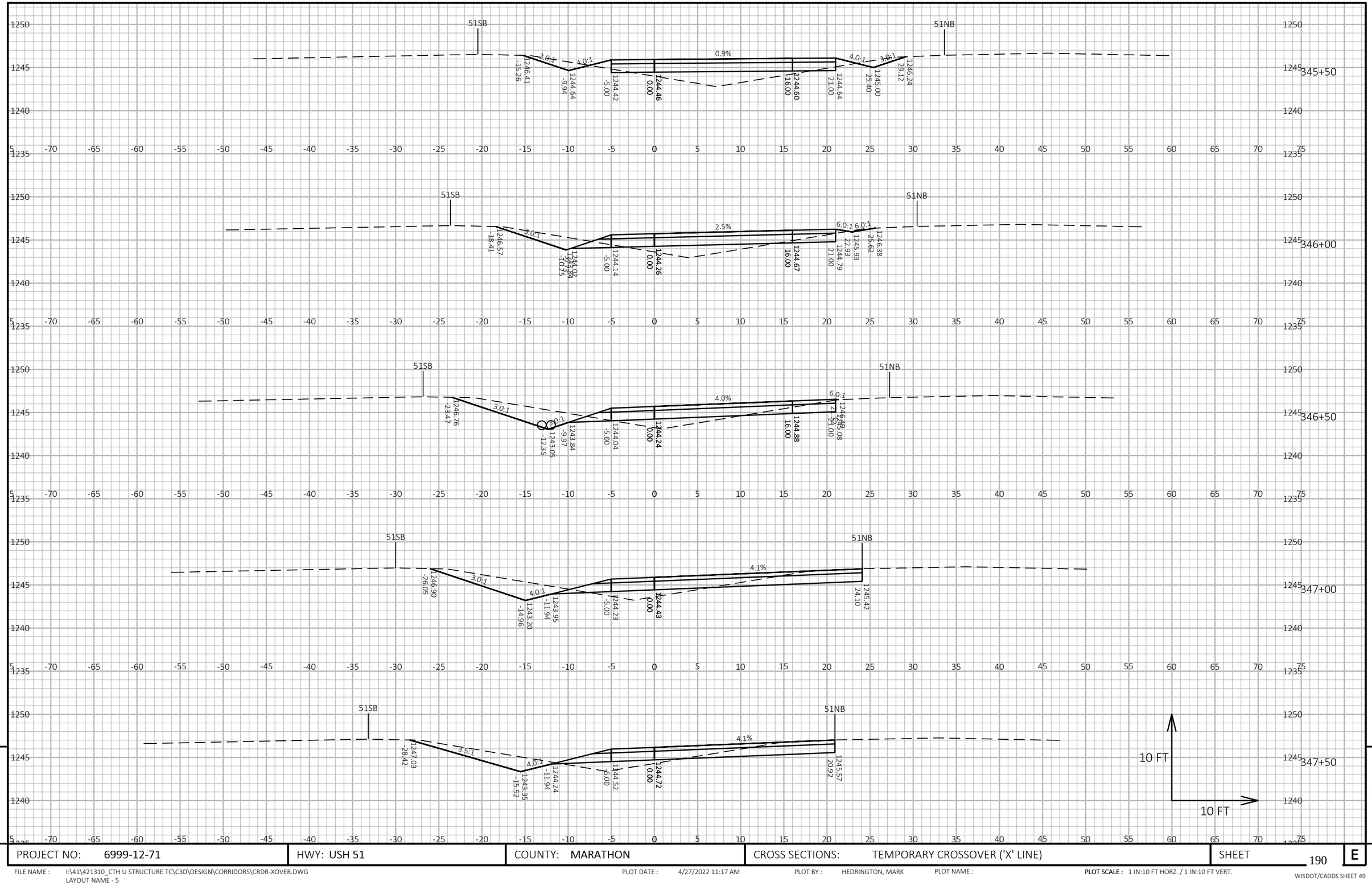


PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER ('X' LINE)	SHEET 189	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-XOVER.DWG
LAYOUT NAME - 4

PLOT DATE : 4/27/2022 11:17 AM PLOT BY : HEDRINGTON, MARK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

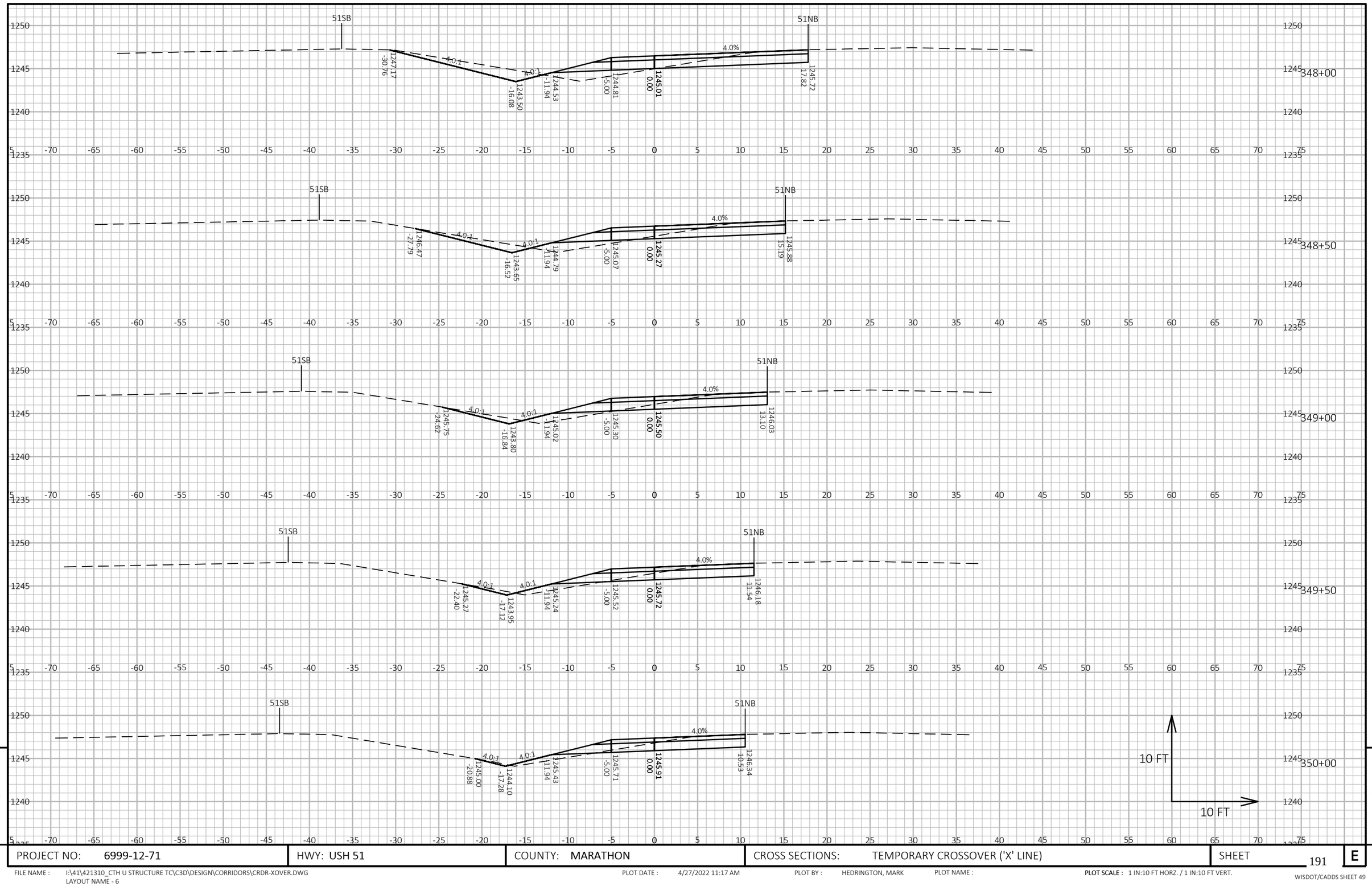


PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER ('X' LINE)	SHEET 190	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-XOVER.DWG
LAYOUT NAME - 5

PLOT DATE : 4/27/2022 11:17 AM PLOT BY : HEDRINGTON, MARK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

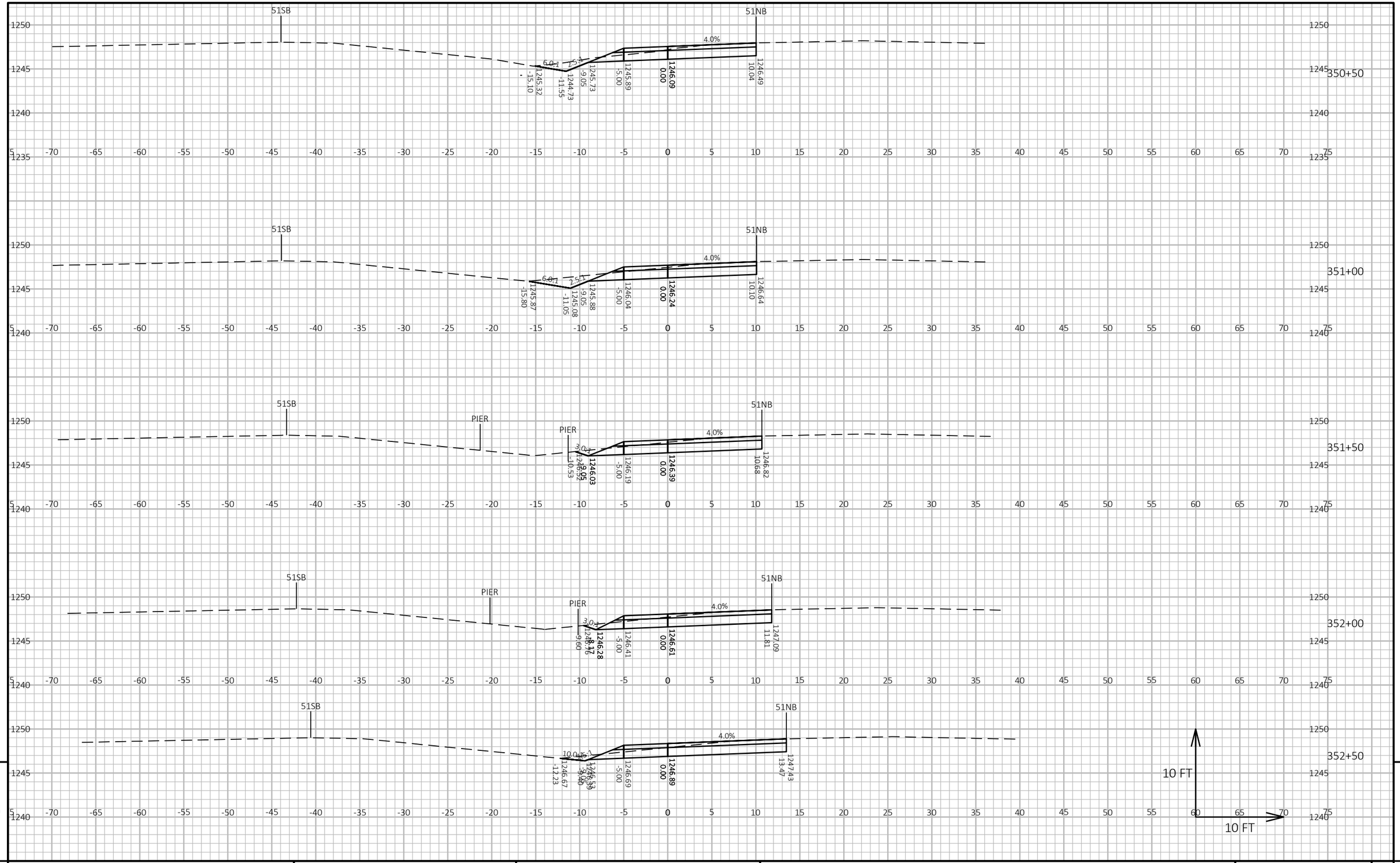


PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER ('X' LINE)	SHEET 191 E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-XOVER.DWG
LAYOUT NAME - 6

PLOT DATE : 4/27/2022 11:17 AM PLOT BY : HEDRINGTON, MARK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

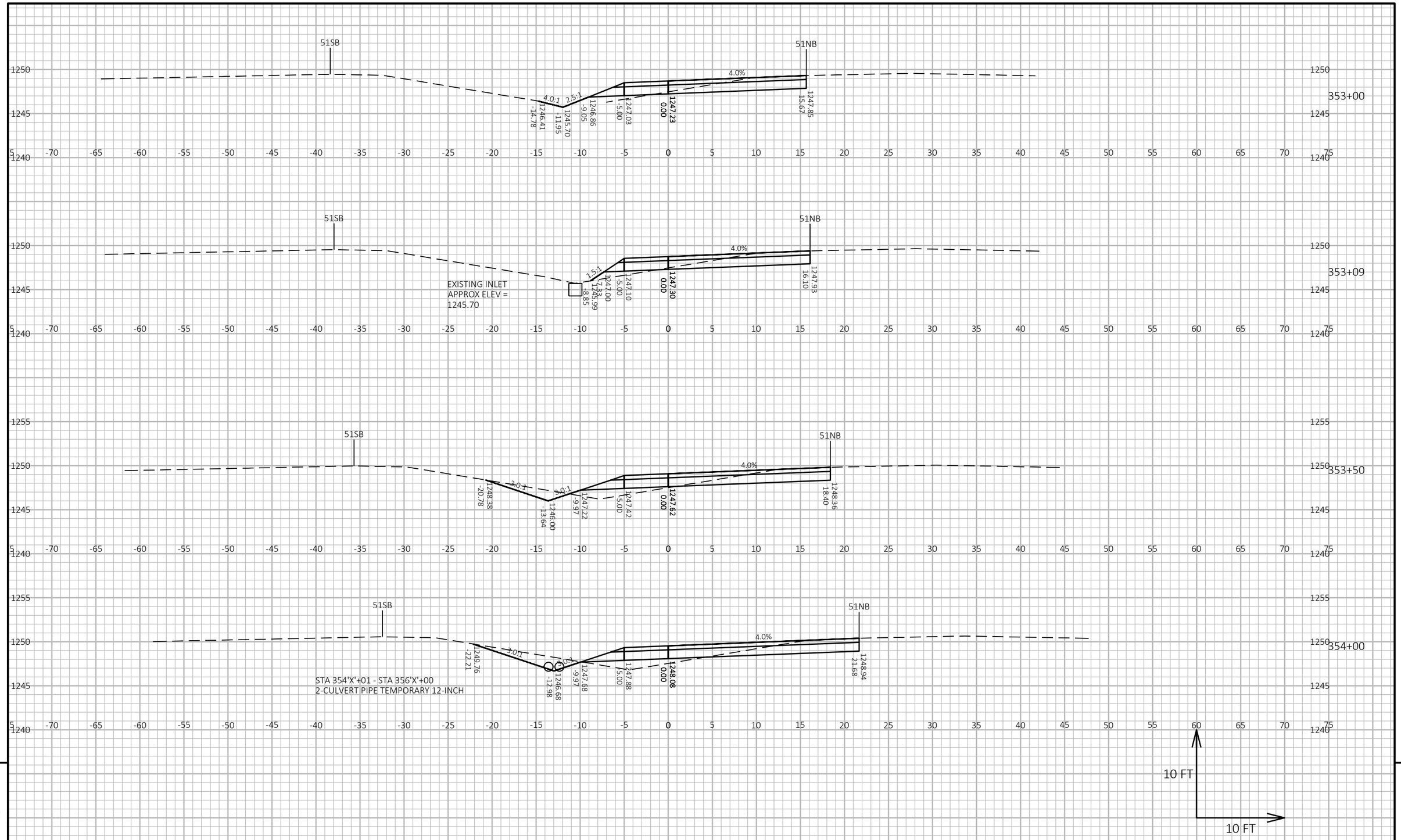


PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER ('X' LINE)	SHEET 192	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-XOVER.DWG
LAYOUT NAME - 7

PLOT DATE : 4/27/2022 11:17 AM PLOT BY : HEDRINGTON, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER ('X' LINE)	SHEET 193	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-XOVER.DWG
LAYOUT NAME - 8

PLOT DATE : 4/27/2022 11:17 AM PLOT BY : HEDRINGTON, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

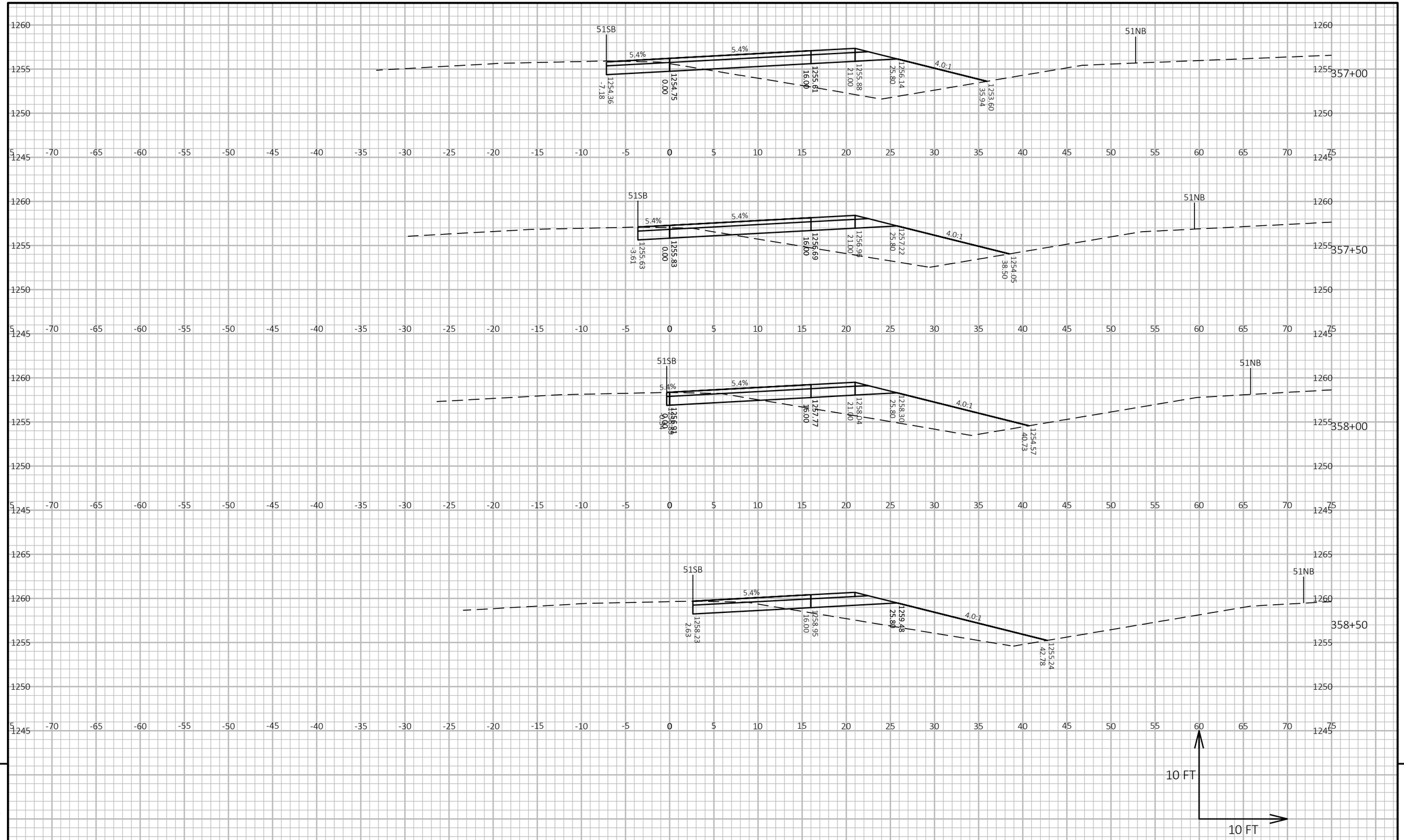


PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER ('X' LINE)	SHEET 194 E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-XOVER.DWG
LAYOUT NAME - 9

PLOT DATE : 4/27/2022 11:17 AM PLOT BY : HEDRINGTON, MARK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

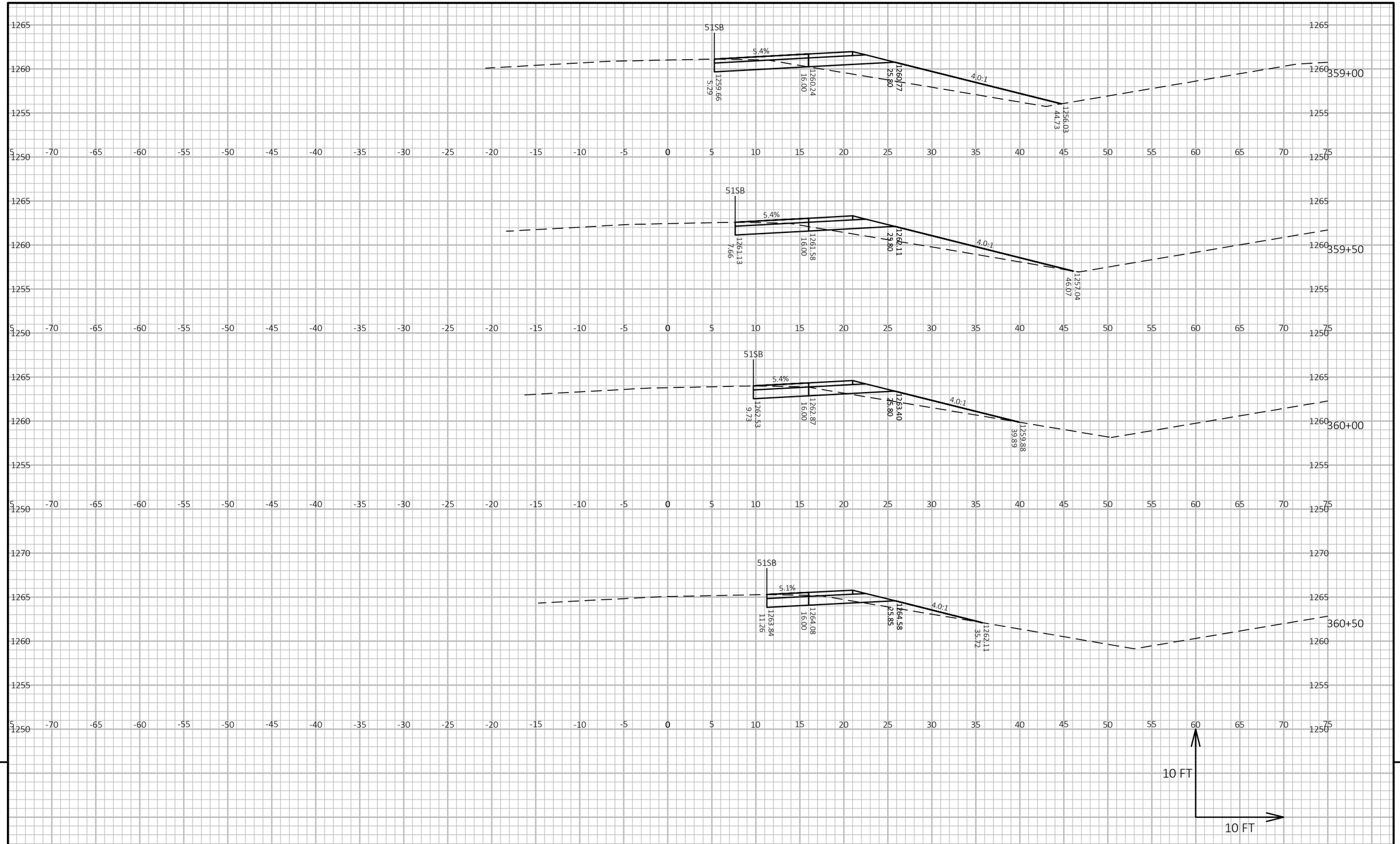


PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER ('X' LINE)	SHEET 195	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-XOVER.DWG
LAYOUT NAME - 10

PLOT DATE : 4/27/2022 11:17 AM PLOT BY : HEDRINGTON, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

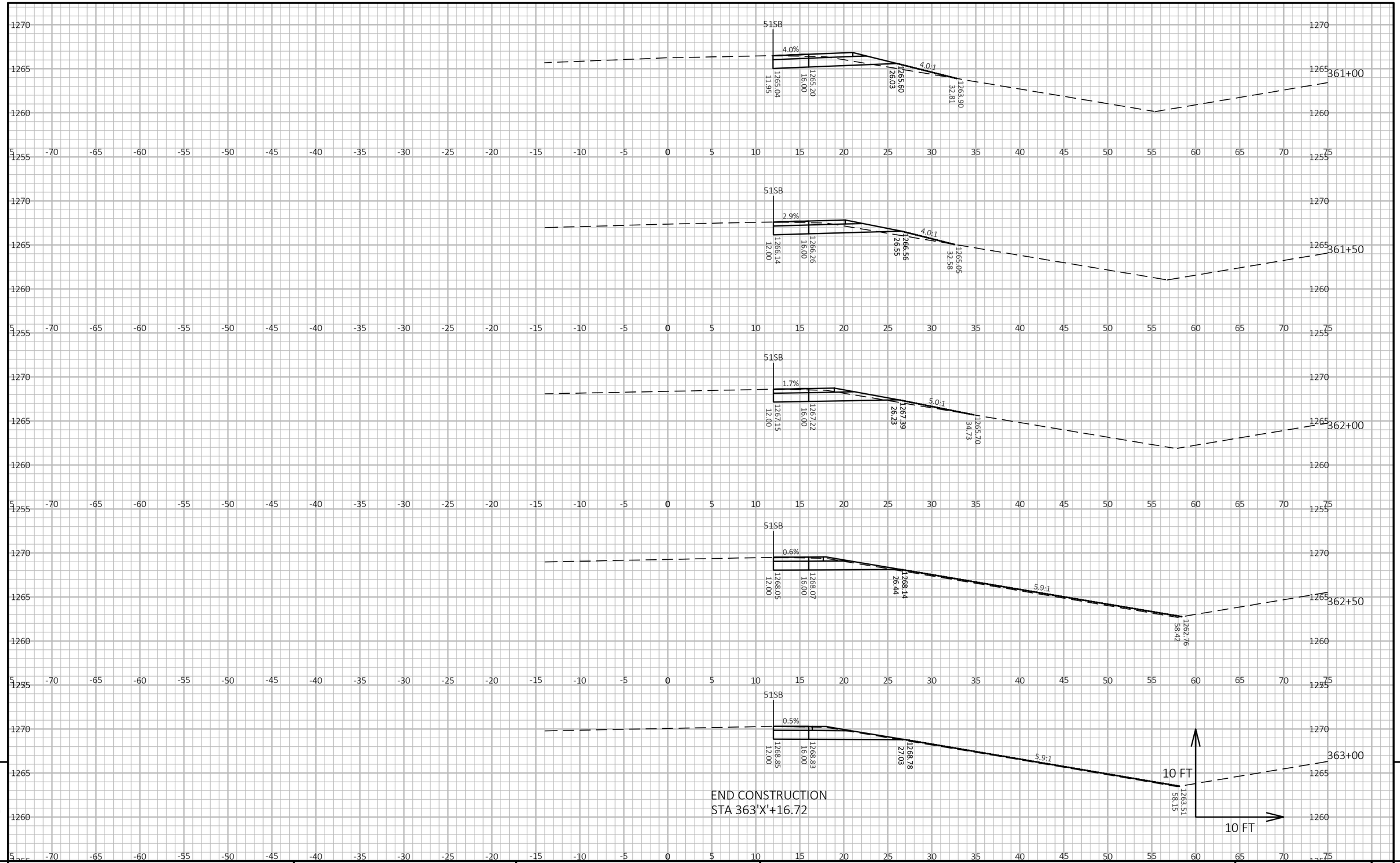


PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER ('X' LINE)	SHEET 196	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-XOVER.DWG
LAYOUT NAME - 11

PLOT DATE : 4/27/2022 11:17 AM PLOT BY : HEDRINGTON, MARK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER ('X' LINE)	SHEET 197	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-XOVER.DWG
LAYOUT NAME - 12

PLOT DATE : 4/27/2022 11:17 AM PLOT BY : HEDRINGTON, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

735+50

BEGIN CONSTRUCTION
735'NB'+77.59

736+00

736+50

737+00

737+50

738+00

4.0%
6.0:1
1244.77
-54.00
1244.11
-37.47
1242.54
-28.06

4.0%
6.0:1
1244.55
-54.00
1243.89
-37.47
1242.32
-28.06

4.0%
6.0:1
1244.36
-54.00
1243.70
-37.47
1242.13
-28.05

4.0%
6.0:1
1244.21
-54.00
1243.54
-37.47
1241.96
-28.89

4.0%
6.0:1
1244.08
-54.00
1243.42
-37.47
1241.80
-27.80

10 FT
10 FT

9

9

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: FINAL MEDIAN	SHEET 198	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-MEDIAN.DWG
LAYOUT NAME - 1

PLOT DATE : 4/27/2022 2:58 PM

PLOT BY : HEDRINGTON, MARK

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

738+50

4.0%
1243.98
-54.00
6.0:1
1243.32
-37.47
1241.67
-27.57

739+00

4.0%
1243.91
-54.00
6.0:1
1243.25
-37.47
1241.57
-27.38

739+50

4.0%
1243.88
-54.00
6.0:1
1243.22
-37.47
1241.50
-27.16

740+00

4.0%
1243.87
-54.00
6.0:1
1243.21
-37.47
1241.46
-26.95

740+50

4.0%
1243.89
-54.00
6.0:1
1243.23
-37.47
1241.55
-26.76

741+00

4.0%
1243.95
-54.00
6.0:1
1243.29
-37.47
6.0:1
1241.51
-26.80
1242.04
-23.60

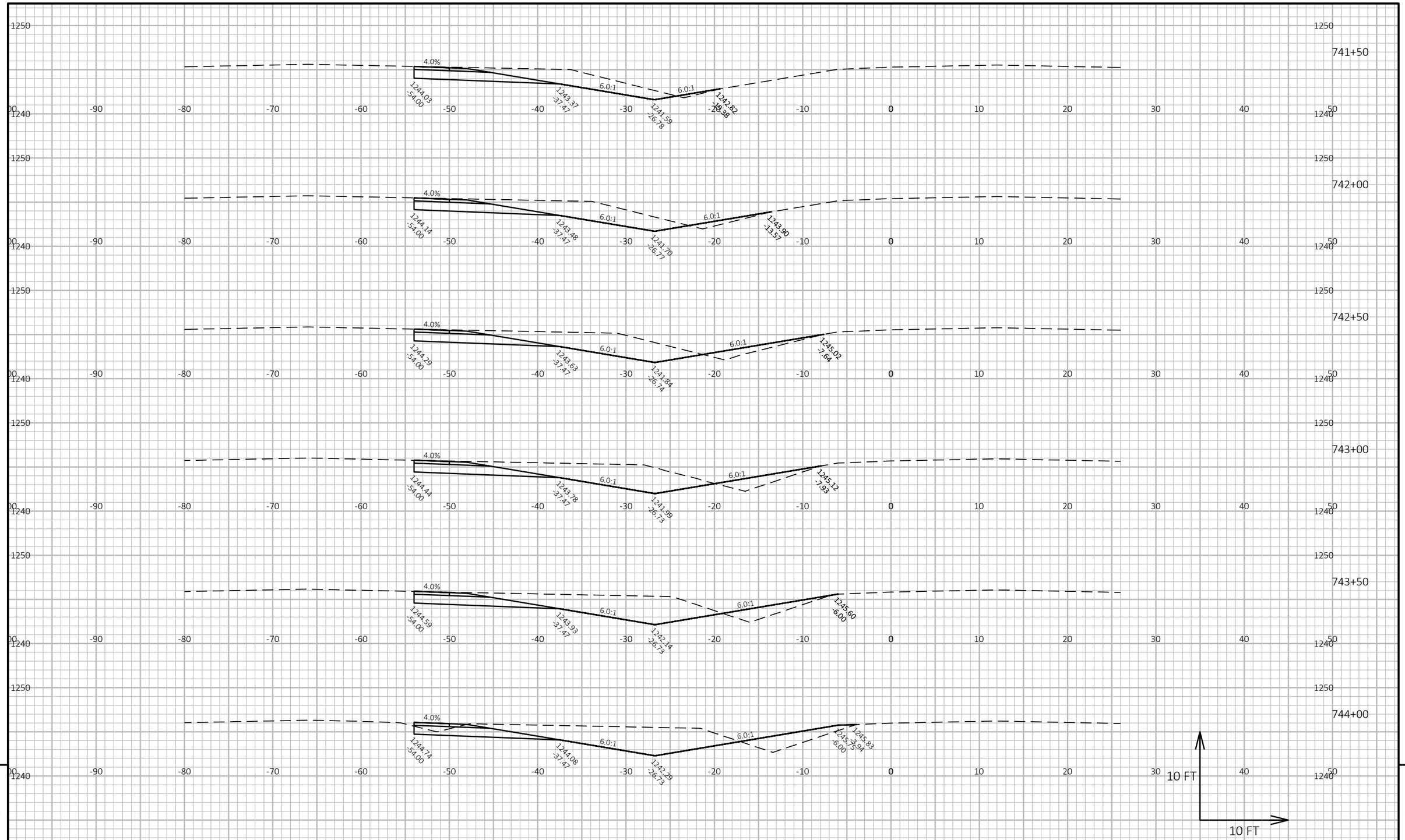
10 FT
10 FT

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: FINAL MEDIAN	SHEET 199	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-MEDIAN.DWG
LAYOUT NAME - 2

PLOT DATE : 4/27/2022 2:58 PM PLOT BY : HEDRINGTON, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

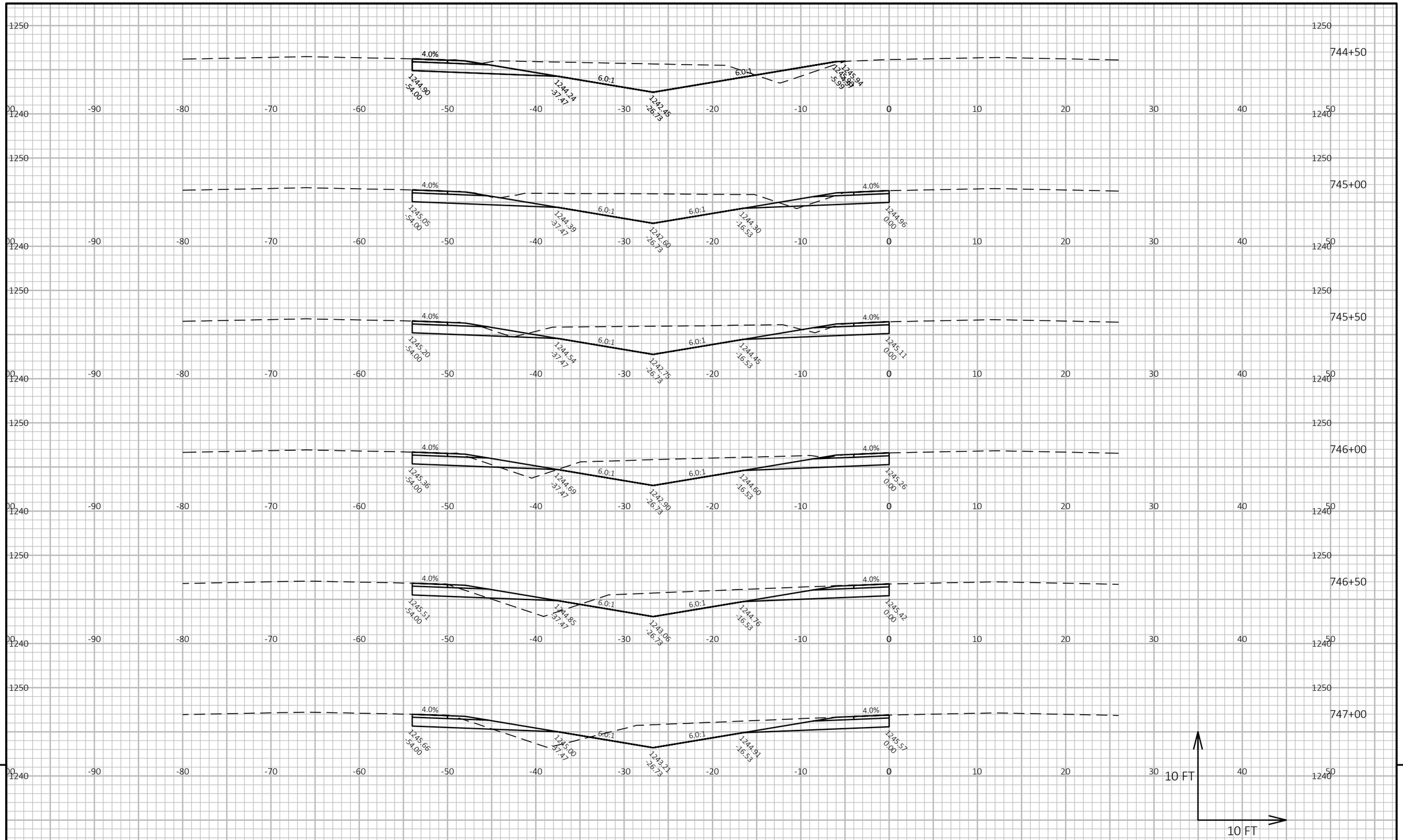


PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: FINAL MEDIAN	SHEET 200	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-MEDIAN.DWG
LAYOUT NAME - 3

PLOT DATE : 4/27/2022 2:58 PM PLOT BY : HEDRINGTON, MARK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: FINAL MEDIAN	SHEET 201	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-MEDIAN.DWG
LAYOUT NAME - 4

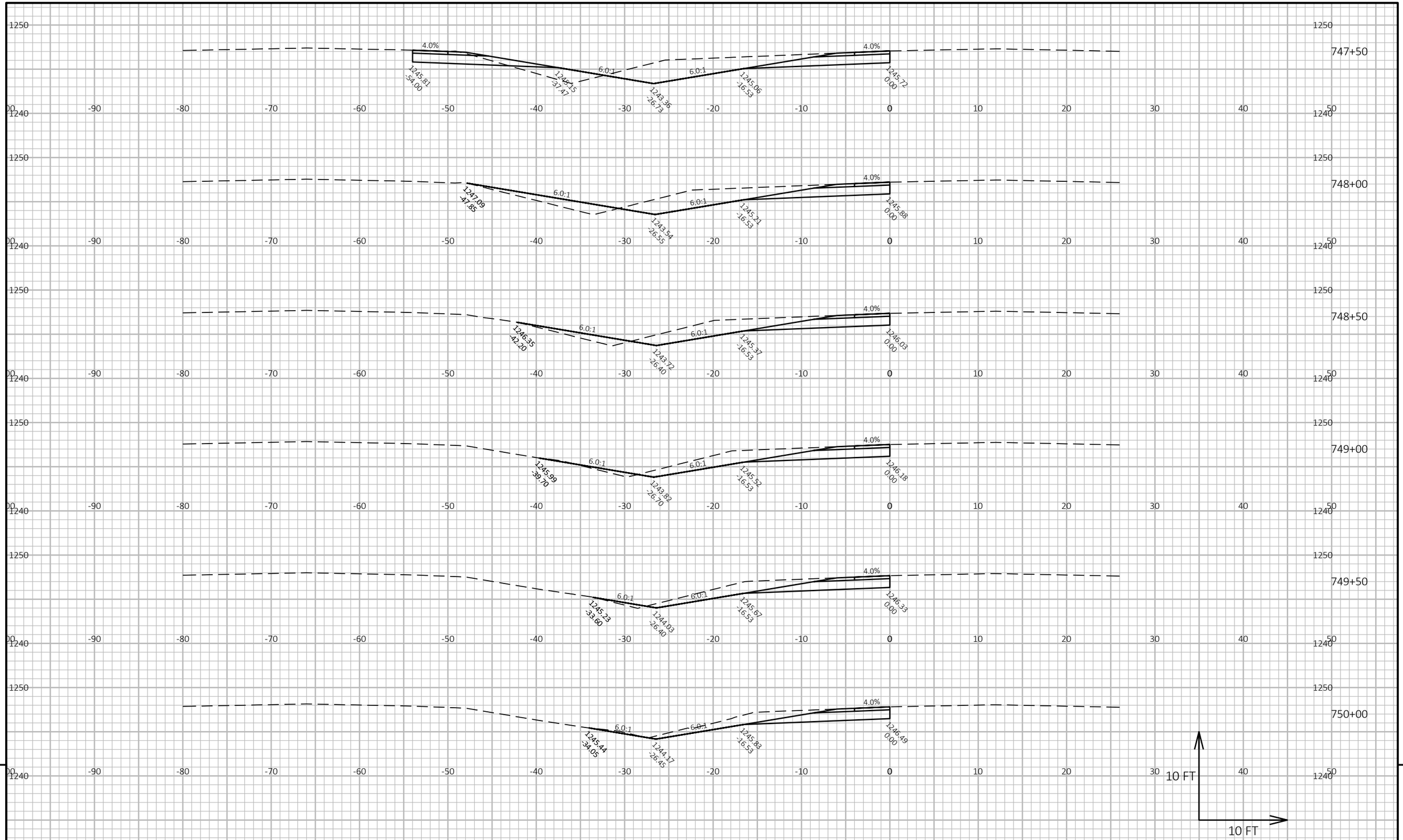
PLOT DATE : 4/27/2022 2:58 PM

PLOT BY : HEDRINGTON, MARK

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

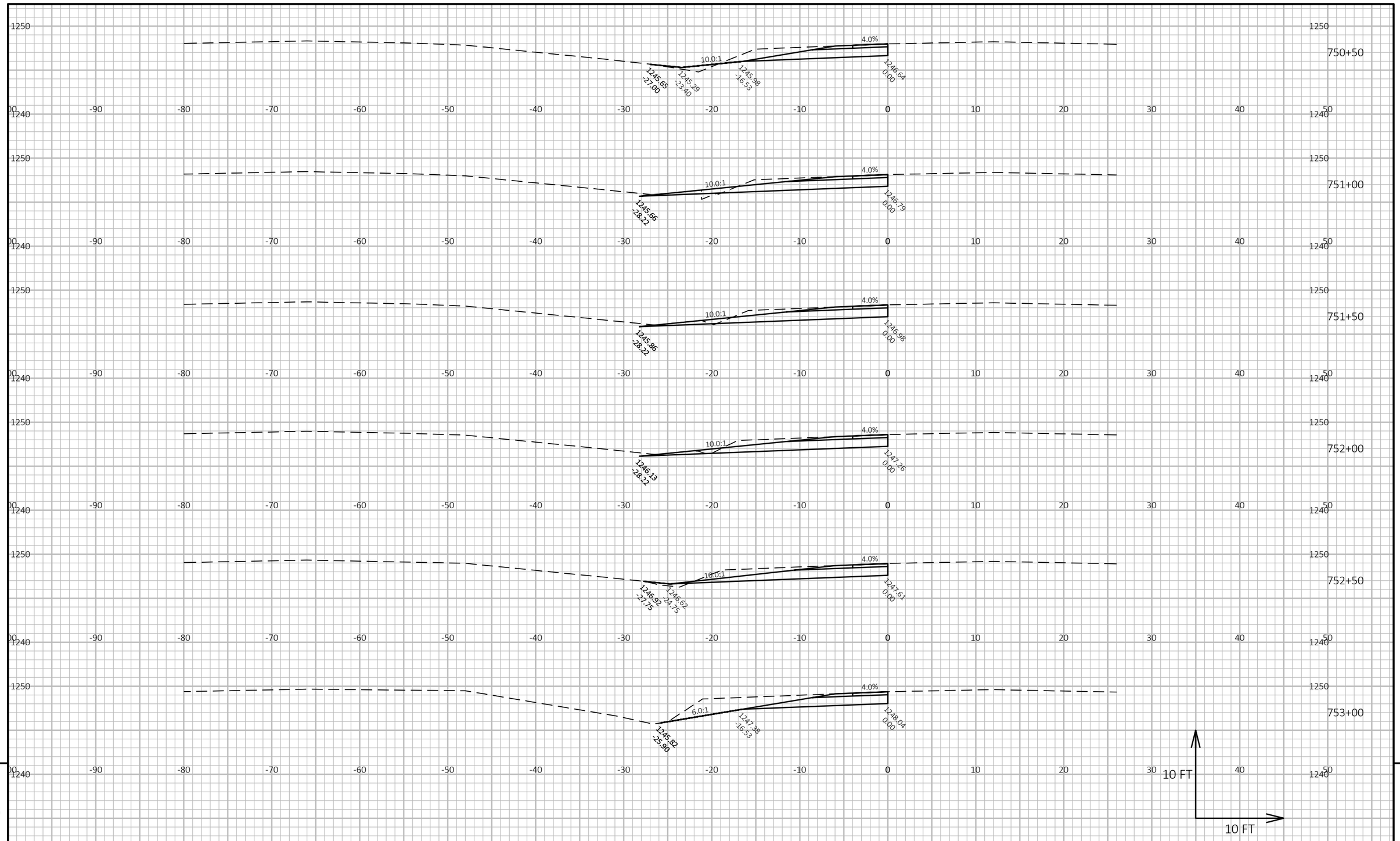
PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: FINAL MEDIAN	SHEET 202	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-MEDIAN.DWG
LAYOUT NAME - 5

PLOT DATE : 4/27/2022 2:59 PM PLOT BY : HEDRINGTON, MARK PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

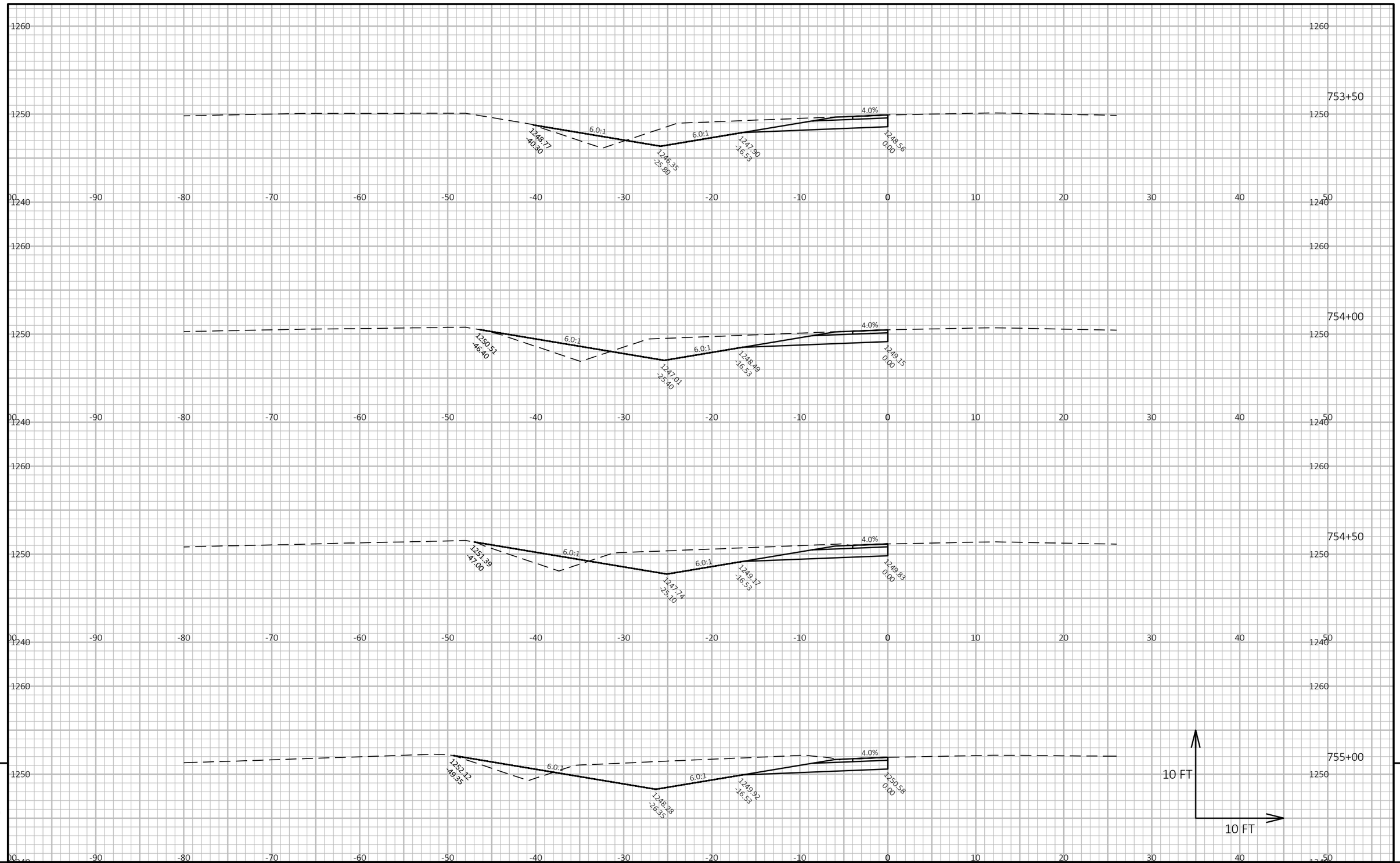
PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: FINAL MEDIAN	SHEET 203	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-MEDIAN.DWG
LAYOUT NAME - 6

PLOT DATE : 4/27/2022 2:59 PM PLOT BY : HEDRINGTON, MARK PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

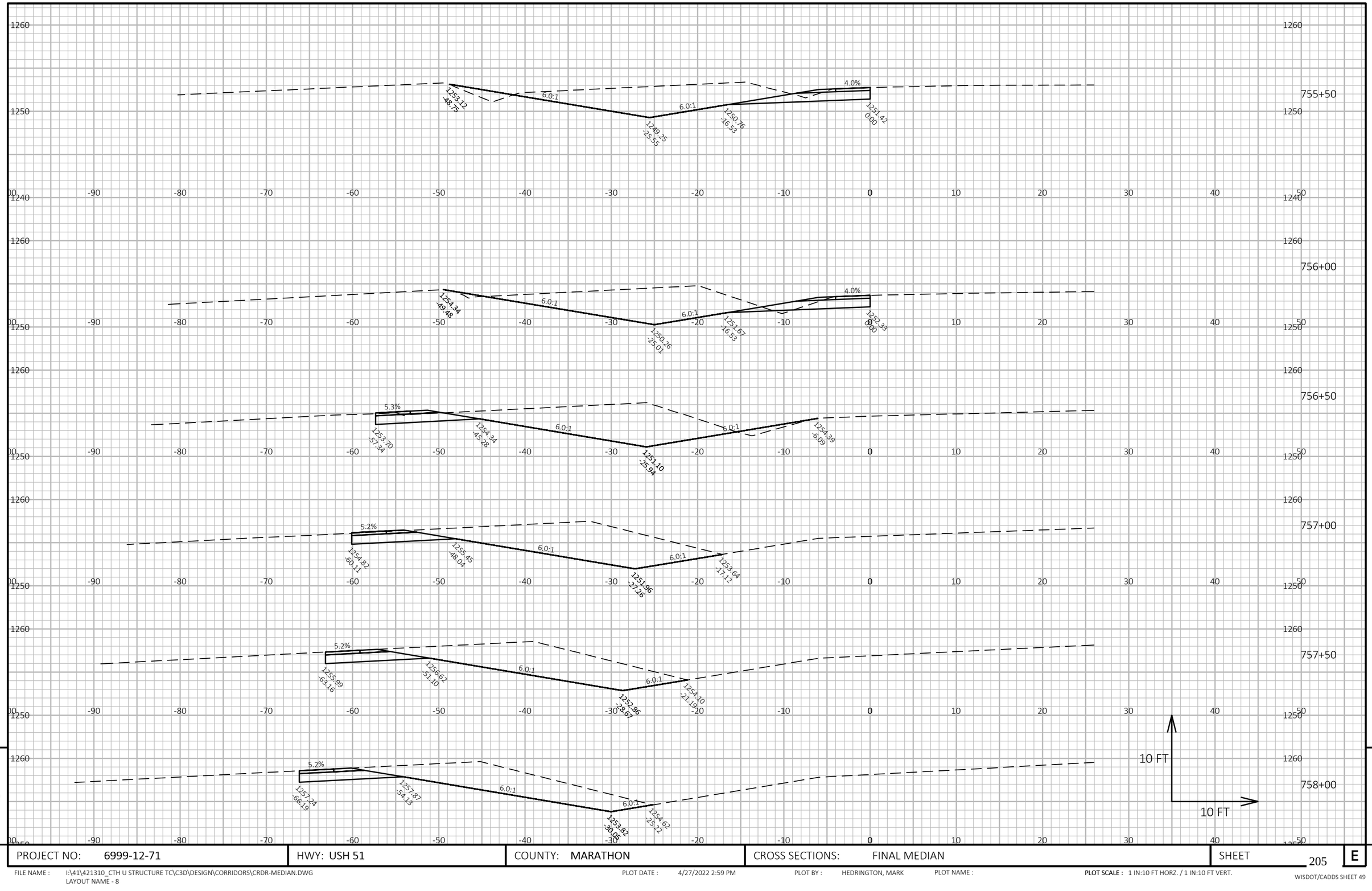


PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: FINAL MEDIAN	SHEET 204	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-MEDIAN.DWG
LAYOUT NAME - 7

PLOT DATE : 4/27/2022 2:59 PM PLOT BY : HEDRINGTON, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

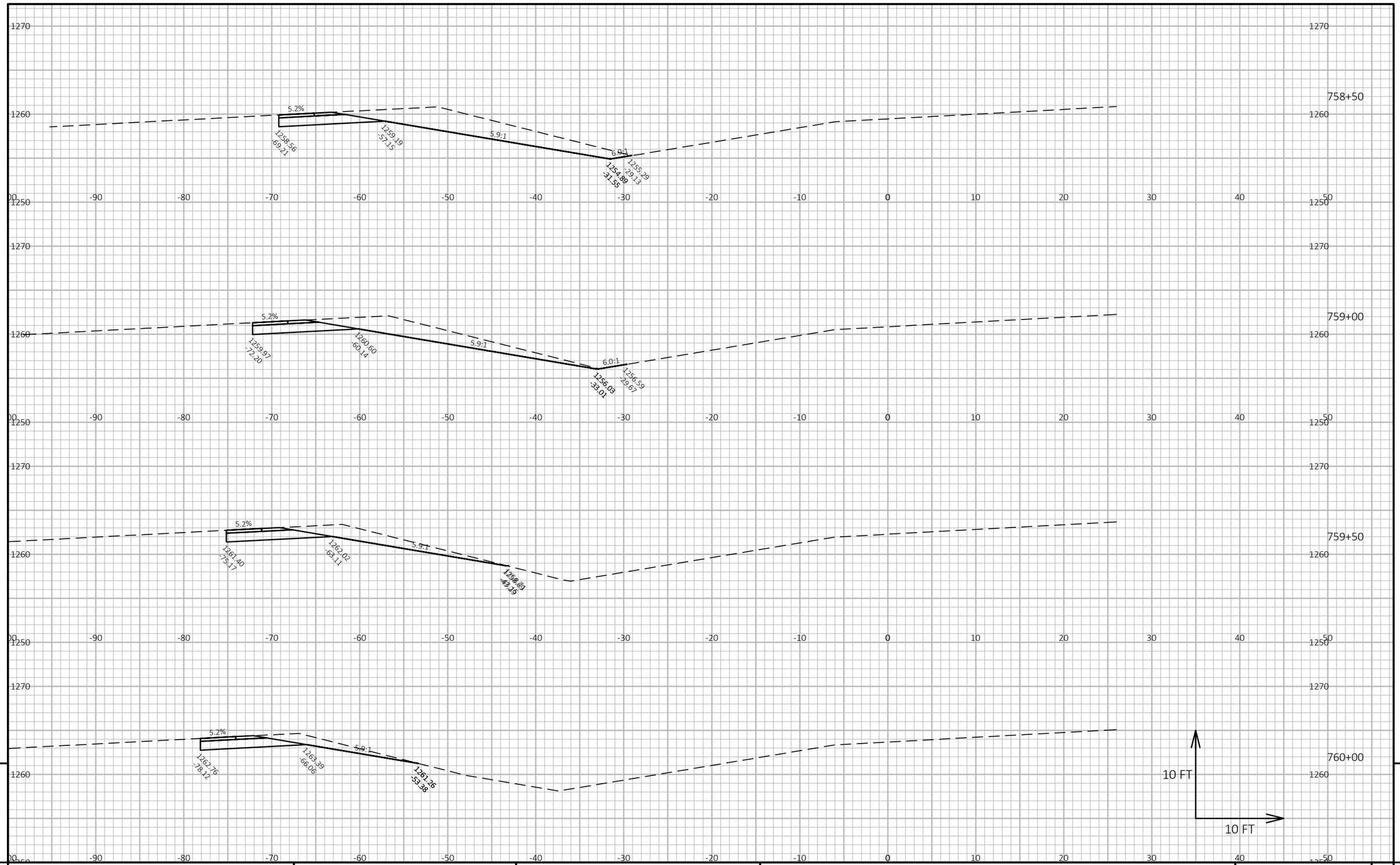
9

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: FINAL MEDIAN	SHEET 205	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-MEDIAN.DWG
LAYOUT NAME - 8

PLOT DATE : 4/27/2022 2:59 PM PLOT BY : HEDRINGTON, MARK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

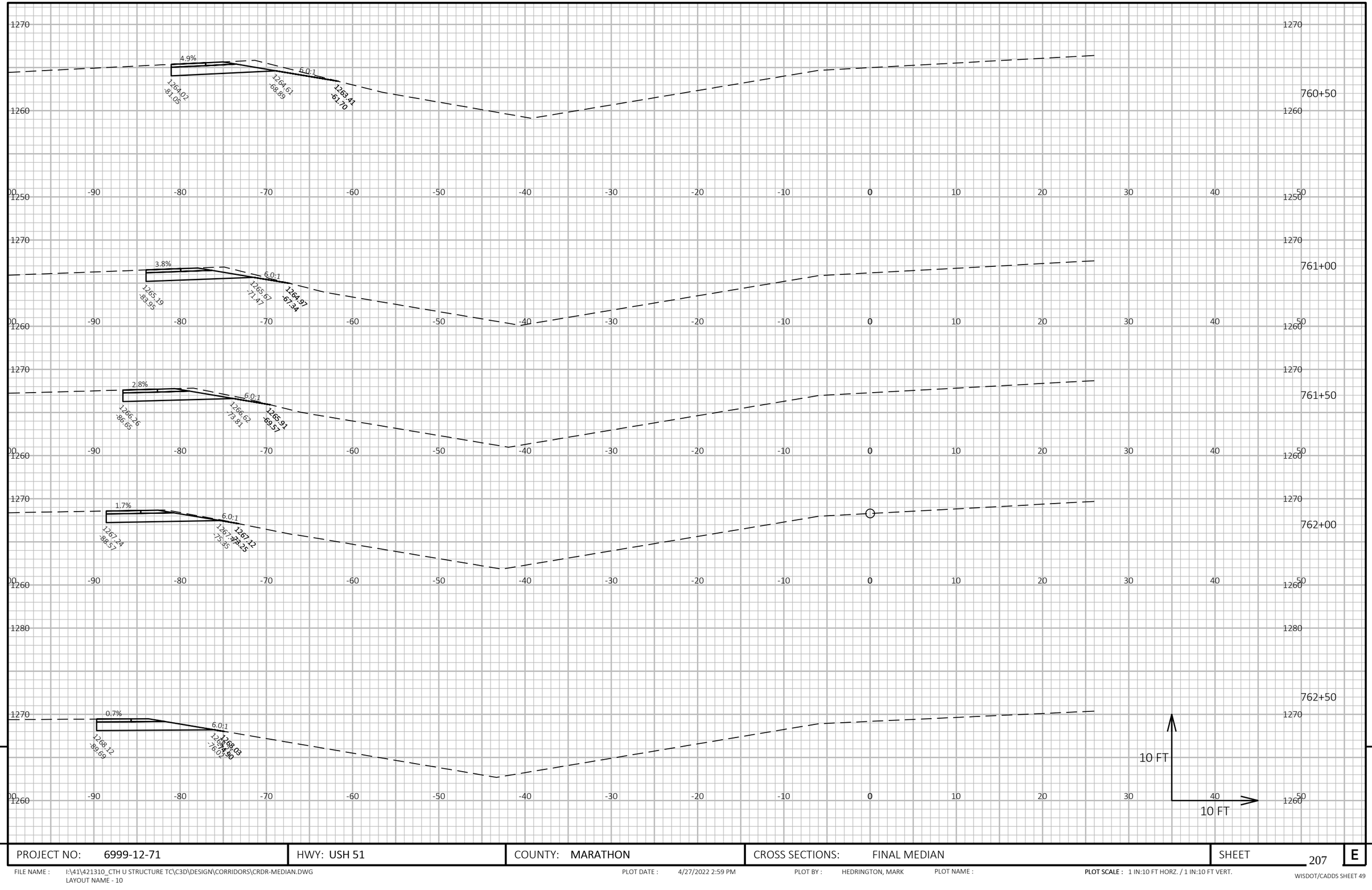
9

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: FINAL MEDIAN	SHEET 206	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-MEDIAN.DWG
LAYOUT NAME - 9

PLOT DATE : 4/27/2022 2:59 PM PLOT BY : HEDRINGTON, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

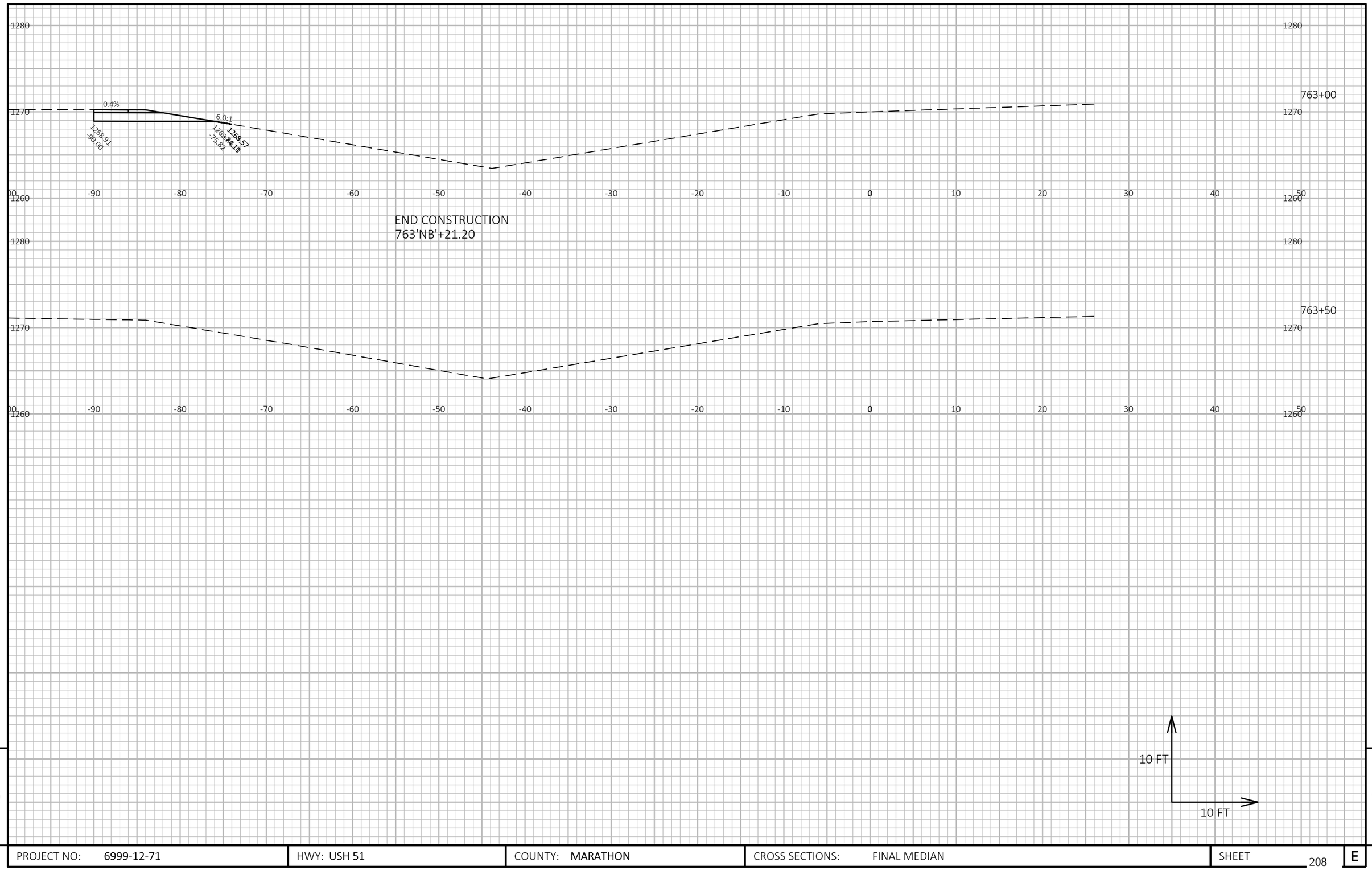
9

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: FINAL MEDIAN	SHEET 207	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-MEDIAN.DWG
LAYOUT NAME - 10

PLOT DATE : 4/27/2022 2:59 PM PLOT BY : HEDRINGTON, MARK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6999-12-71	HWY: USH 51	COUNTY: MARATHON	CROSS SECTIONS: FINAL MEDIAN	SHEET 208	E

FILE NAME : I:\41\421310_CTH U STRUCTURE TC\C3D\DESIGN\CORRIDORS\CRDR-MEDIAN.DWG
LAYOUT NAME - 11

PLOT DATE : 4/27/2022 2:59 PM PLOT BY : HEDRINGTON, MARK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov